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UNIVERSITY OF LA VERNE

La Verne, California

CHARACTERISTICS OF ENVIRONMENTAL RESTORATION, SERVICE-
LEARNING PROJECTS IN SELECTED, CALIFORNIA WATERSHEDS,
AND THE PERCEIVED GAINS BY PARTICIPATING AT-RISK,
HIGH SCHOOL STUDENTS AND THEIR TEACHERS

VOLUME II

A Dissertation Submitted in Partial Fulfillment of the
Requirements for the Degree
Doctor of Education

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School of Organizational Management
Department of Educational Management

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CHAPTER V
CONCLUSIONS, IMPLICATIONS, AND
RECOMMENDATIONS

There's no quality of life without quality of water.

Jacques-Yves Cousteau

Introduction

This chapter presents conclusions drawn from the data analysis, implications for future research, and recommendations for action based on the results of the study.

The Purpose of the Study

The primary purpose of this study was to describe the characteristics of environmental restoration service-learning projects in selected California watersheds that produced gains for at-risk high school students who were enrolled in the programs. A second purpose was to describe the characteristics of service-learning programs that at-risk students and their teachers perceived to be most helpful in making gains in school attendance, sense of connectedness to community, sense of social responsibility, sense of personal efficacy in solving problems, and understanding of watershed stewardship, and to determine if a difference existed between those perceptions.

Conclusions

The findings of this study suggest conclusions that have a bearing on the theory of adolescent development, at-risk youth, educational reform, social renewal, and environmental healing. These conclusions have implications for those who strive daily to serve the needs of at-risk youth in alternative education settings, and who include service learning as one their educational methods. These conclusions also have implications for how public schools and communities need to change to reengage youth through purposeful learning in the form of meaningful inquiries, responsible roles, and supportive environments.

Common Characteristics of Effective Environmental Restoration Service-Learning Programs for At-Risk Youth

The common characteristics of effective environmental restoration service-learning programs function to create communities of support for at-risk youth. These characteristics meet student needs and bring relevance to their lives. Schools and programs that embody these characteristics encourage student membership, commitment, active engagement, and success. These programs and schools bring to life one of the most important themes of current school reform literature, that all students can learn, even the ones who couldn't, or who chose not to make it in the traditional high school setting (Kohlmoos 1995).

It appears that alternative education programs by definition have had to redefine education around the needs of individual students. In so doing, they have personalized and individualized instruction to reach at-risk youth. Small,

flexible school environments and cultures of inclusion and accountability have resulted. These environments have been found to be effective in helping at-risk youth to reset themselves and advance learning and career goals. Mainstream comprehensive high schools and educational systems can look to model alternative education programs for the innovation and restructuring of learning needed to meet both individual and group needs (Wells 1990; Wehlage and Rutter 1986). In essence, alternative education programs have pioneered many of the effective program characteristics identified from the research literature (Peck, Law, and Mills 1987; Wehlage et al. 1989; Gottfredson 1986; Benard 1991; Nunn and Parish 1992; Feldman et al. 1983, Rossi and Stringfield 1997).

Unfortunately, barriers of prejudice, snobbery, and casteism exist in the minds of many California educators, administrators, and citizens who tend not to consider that at-risk youth and their teachers have something to offer "normal" students in "normal" comprehensive high schools. Much can be learned from at-risk youth and from programs that have been successful in helping these students learn, mature, become productive, and feel hope again.

School Attendance

When alternative education programs provide at-risk students with choices and opportunities to have fun, and actively do things that interest them, especially outside the normal classroom, students are naturally more inclined to "look forward" to doing the activities of learning, and to come to school. When one looks forward to doing something, that something arouses a sense of hope,

a sense of expectancy. Individual energy and anticipation is higher in such a state of readiness. Students clearly preferred getting out of the regular routines of the classroom and working outdoors. A release of energy accompanies getting outdoors and doing hands-on activities. More neural connections are made when engaged in enriched, minds-on, hands-on learning (Caine and Caine 1994). Such activity offers more intrinsic motivation, meaning, and reinforcements for young people conducive to learning, retention, and desire for repeated involvement. Shumer (1994) came to the same conclusion. Field studies were viewed as motivational. Environments that "didn't seem like school" were valued by students.

The chance to learn new things and develop job skills in meaningful contexts can increase the relevance and usefulness of academic education for at-risk youth. School becomes more worthy of personal investment prerequisite to achievement. Students need a chance to connect their future goals with their current high school studies. This conclusion is in accord with the findings of Follman (1996), Adenika-Morrow (1995), and Luchs (1980) that students who were involved in experiential programs demonstrated positive and significant gains in school attendance and acceptable behaviors. Their service-learning partnerships offer them adult roles and jobs which can help them mature, jobs that they might not otherwise get in a traditional high school. They can acquire a more realistic sense of their own abilities and interests. Lastly, the ownership and sense of responsibility felt for their school or service-learning project

reported by participants indicates they felt they were doing something that mattered. It makes sense that an at-risk youth with a history of disengagement and disenfranchisement would be more likely to respond to meaningful adult roles and responsibilities when encountered in a supportive environment that fostered membership, encouraged learning, and inspired commitment. That person could come to see that he or she has a respected place in the world, is a somebody at school rather than a nobody. Service learning promotes individual efficacy.

The visual cue suggested by the similarities in the clumping of data in figure 8 (degree of engagement in class work) and figure 6 (motivation to attend school) suggests that a correlation exists between steady or stronger sense of engagement in classes with increased motivation to attend school after participation in effective service-learning programs.

Sense of Connectedness to Community

Schools that function as trusting, respectful communities and utilize active, experience-based learning strategies foster participation. Participation fosters a sense of belonging, connection, and sense of responsibility. Students reported that opportunities to do good/help others and engage in active, hands-on learning had the most impact on their sense of connectedness to their community. They came to see that helping others is natural and part of the normal give-and-take of membership in a community. Through active, environmental restoration service learning, at-risk students gain in their sense of personal capacity and ability.

They learn how they can make a difference and how, when engaged in group efforts, their community can make a difference. They remember and value their social relationships, who they did things with, as much as what they did.

Students also reported that their sense of accomplishment/rewards, having responsibility and adult roles, and involvement in their community were helpful in building their sense of connectedness to their community. Structured and purposeful involvement in a variety of service-learning projects and sub-tasks can generate success experiences in at-risk youth. They can generate new energies in individuals, thus promoting the achievement of personal and organizational goals (Harvey and Drolet 1994). Success experiences breed a sense of satisfaction that encourages continued effort. This study has shown that successful environmental restoration service-learning programs help at-risk youth to achieve educational success and to begin to associate good feelings with learning, with their teachers, and with school. Successful programs help school become a place where students want to belong.

Encouraging, challenging, service-learning environments that instill in at-risk youth the motivation to learn and share, help students shoulder natural responsibility, and act like more mature adults. These results are achieved in part by giving students opportunities to serve in their communities, to inquire and to investigate, to explore and to conclude what are communal needs and resources. Doing so leads at-risk youth into roles that matter, into actions that

count. It emboldens them and makes them stand up again, first in their own eyes, and then in the eyes of others.

These desirable outcomes counter feelings of alienation, isolation, fragmentation, powerlessness, normlessness, and meaninglessness which researchers have found associated with at-risk youth and the spiritual, moral, psychological, and social breakdown associated with them (Seeman 1959; Dean 1961; Newmann 1981; Calabrese and Schumer 1986; Rossi and Stringfield 1997). The literature repeatedly cites the need for strategies to build a sense of belonging in at-risk students (Shumer 1994; Duckenfield and Swanson 1992; Wehlage et al. 1989). This researcher has come to the same conclusion. These strategies create positive outcomes which serve as protective factors in the lives of at-risk youth, and contribute to their resiliency (Benard 1991). By bringing people together from different ethnic, racial, and political backgrounds, service and volunteer work helps people "to work together, build community, and foster mutual respect and tolerance" (Etzioni 1993, 261).

Sense of Social Responsibility

Effective environmental restoration service-learning programs develop and coordinate opportunities for at-risk youth to do good, to give back to their community, to be helpful; in short, to be truly human. Students valued both the sense of cooperation that existed among students and teachers, and the cooperative ventures they participated in with their community as being helpful in developing a greater sense of social responsibility. The researcher was not

surprised to find "social feeling" (Adler 1964a, 275), "having an interest in the interests of others" (Ansbacher and Ansbacher 1964, 140), and the complex web of personal and social relationships as being valued by at-risk students. Social-mindedness and compassion are perennial values. Giving expression to them, even in small ways, manifests the realization that personal welfare and common good are interrelated, and are the natural result of seeing one's self in others.

A can-do attitude develops from performing service work and accomplishing goals. It also generates a greater feeling of control over personal destiny. A self-founded sense of accomplishment and pride in their community/program has its mirrored counterpart in the welcome appreciation and recognition which the community can give to service learners. Such reciprocation is balm to the wounded souls of many youth whose pride and sense of themselves is diminished from having experienced past failure or abuse, or living down the shame and confused indignation of having violated some social or institutional norm. A sense of personal value is nurtured by the experience of intrinsic satisfaction and the receipt of extrinsic rewards and gratitude from kind souls who take the time and make the effort to notice. Positive experiences and praise can help to rebuild what once existed, or build up what never existed. This sense of competence is critical to adolescent development (Erickson 1959) and real self-esteem founded on genuine skill and successful interactions with surrounding environments (Bandura 1977; Worrell 1994).

Conceptually, the perceptions of students gathered by the researcher conform to the three dimensions of attitude, competence, and efficacy in Conrad and Hedin's (1981) Social and Personal Responsibility Scale. When students have a responsible attitude toward society, feel competent to act on their concern for others, and believe their actions and concern will make a difference, they will act responsibly.

The efficacy of active, hands-on learning in general education and vocational education seems to be beyond question. It is clearly recommended in the educational reform literature (Eisner 1993; United States Department of Education 1996) and in the seminal work of experiential learning theorists such as Dewey (1938) and Piaget (1970). Its mention again by students as instrumental in developing their sense of social responsibility reaffirms long-held beliefs that a democracy is not a spectator sport which can be safely maintained from a couch. Democracy requires the exercise of personal responsibility through meaningful participation, thoughtful discussion, and committed action in individual communities and the larger world guided by life-affirming, pluralistic values (California Department of Education 1997; Stanton 1988; Newmann 1987; Morrill 1982).

Increased ecological knowledge was also reported by students to impact this variable. This finding underlies the importance of promoting unitive understanding, where humankind is not viewed as separate from nature, but its own manifestation; dependent on, and kin to plants, animals, and minerals. An

ethic of caring and sympathy for the diversity of life forms that make up the natural world is essential for maintaining the integrity and sustainability of life itself. Ecological responsibility is social responsibility based on a more proper, inclusive sense of identity, relationship, and liability.

Sense of Personal Efficacy in Problem Solving

Problem solving is learned by solving problems. Repeated exposure to the challenges of dealing with real problems in cooperative group settings builds understanding and confidence in dealing with them. At-risk youth reported that school became more meaningful to them when they were given opportunities to think practically. They could derive knowledge from their own experience and the shared experience of others in their group. They came away feeling more valued as members of the community. They started to learn directly, and by example, that citizenship is problem solving; is responding to the social and environmental needs of the society they live in. They got a taste for being part of the solution to problems, rather than being the source of them. Pittman (1996), Boyte and Massengale (1996), Schine (1990), Pereira (1990), Rutter and Newmann (1989) and others have addressed the need for youth to develop civic literacy skills in addition to academic and vocational skills.

Students reported the helpfulness of cooperating with others, reflection/discussion, and facing real challenges in developing a greater sense of personal efficacy in solving problems. Humans are problem-solving creatures and we are designed to help each other. Working together, people can make democracy

function as it should. They can bring about social and environmental renewal. Discussion and debriefing can bring to conscious awareness and group attention important concerns or perspectives which, if included in revised project implementation plans or problem solution strategies, would result in more improved action. Personal and group sharing can bring to light nuances and learnings that lead to expanding thinking and problem-solving skill (Eyler and Giles 1999). Reflection/discussion can also provide opportunities for self-examination and interpersonal feedback which can contribute to enhanced emotional functioning, communication skill, and character development, resulting in more self-confidence and harmonious interpersonal relations.

Facing real challenges in the form of hands-on, environmental restoration service-learning projects in the community and on the school grounds has several benefits which student participants addressed. Students said they valued the adult roles and treatment associated with them, the relevance of the projects, the feeling that what they did mattered. Involvement contributed to the maturity of their sense of self, that they could view themselves as a helper, a contributor, a doer. Repeated social interaction and collaborative problem-solving led to increased knowledge/environmental awareness and a sense of accomplishment. As Gardner (1991) has testified, participation in service learning prompts at-risk youth to grow up, to find their strengths and use them.

It is interesting but not surprising to note that many of the same variables which have been influential in developing a sense of efficacy in solving problems,

also contribute to a sense of social responsibility, a sense of connectedness to community, and a desire to attend school. They interact together, reinforcing previous findings in the literature on adolescent development, at-risk youth, educational reform, service learning, and community renewal. Kids will mature naturally if given many opportunities to do meaningful work in a real-life context with increasing amounts of responsibility and autonomy.

Understanding of Watershed Stewardship

Students reported hands-on activities/direct experience, increased knowledge/environmental awareness, and sense of cooperation to have an impact on their understanding of watershed stewardship. While background information and science concepts are communicated to students initially to give an overview, new insight and awareness grows over time. Students came to sense and articulate the characteristics of their local watershed and the effect which human activities have had on their natural world. Direct experience with their school garden, local creek, or park gave students additional knowledge and environmental awareness. It spawned new questions, new initiative, and new linkages, not only in their minds in terms of individual understanding, but also socially in new relationships with people in their community. Participation in service-learning projects with their friends, classmates, and community partners helped them see that caretakers of the environment apply their ecological knowledge and act on their love of place in its defense and enhancement. With enough time out-of-doors, students come to see that nature herself is a complex

web of relationships, a community of living beings to which they belong.

They can come to understand intellectually and emotionally that while people have created watershed problems affecting the supply and quality of water, people can remedy problems with vision, commitment, and action.

The researcher observed that students who had either intensive or extensive environmental restoration service-learning experience came to see watershed restoration as a process. This process involves recognizing and developing increasing insight into, and intimacy with, the natural system being restored, the (only known) natural system which supports human life and economic endeavors (Jordan 1990). It also brings about an internal psychological and emotional healing in the restorer. This phenomenon is akin to the "helper principle" brought to light by psychotherapists, counselors, and educators. In the act of helping another, the helper is helped (Kelly, 1973; Perlmutter and Durham 1965; Reissman 1965).

Perceptions of Teachers

Teachers consistently perceived and rated the universal and particular characteristics of their service-learning programs to be more present in their programs than was the perception and rating by their students. This discrepancy can be explained by the teachers' greater familiarity with the purposes, components, and management of their respective programs. In most cases, Nueva Vista High School being the exception, teachers have been with their program for three or more years and have a significant history with it and several

"batches" of students. The differences in perceptions among teachers were mainly found to be due to the variance in emphases of the three programs studied.

Teachers agreed with students that adult roles and responsibilities, hands-on, environmental science and restoration projects, opportunities to develop job skills, and their sense of responsibility impacted students' school attendance. These characteristics made school seem more fun, more interesting and engaging, more relevant, and more useful. Taken together, they helped school appear to be more worthwhile, to be more helpful in assisting at-risk youth in growing up, in finding themselves, in becoming more productive, trustworthy, and self-reliant members of the community.

The perceptions of teachers and students correlated in two areas. Teachers and students shared the perceptions that being part of the solution to social and environmental problems and recognition for student accomplishments both had impact on students' sense of social responsibility. These points of agreement reflect a common understanding of how young people mature. They learn to be more responsible by being given more appropriate responsibility. Encouraging them to take active, meaningful roles in the resolution of problems in their community gives them an opportunity to learn. They learn from their own experiences and from relating to others in the course of the project's implementation. When students are supported and guided to achieve these common aims, they experience success and the satisfaction that comes with it.

Public acknowledgement of the contributions of student and community volunteers communicates an undeniable message that these negatively viewed "at-risk youth" did something positive. They come to view themselves differently, as helpers, indeed as capable of being positive. Their relating to positive adult role models shows them ways to relate to others and solve problems in mature ways. The energy and motivation which success generates enables at-risk youth to more easily say "yes" to the next volunteer project that comes along.

Many program characteristics were mutually perceived as impacting students' *sense of personal efficacy in solving problems*. The helpful characteristics students and teachers both identified for this variable were opportunities to: participate in habitat restoration and natural resource monitoring/real science, face real challenges, have adult roles and responsibilities, and experience a sense of accomplishment. This level of concurrence supports the literature.

The only characteristic which teachers and students both identified as helpful in developing students' *understanding of watershed stewardship* was hands-on, direct experiences in their watershed. This mutual identification confirms learning theory and the urgent proposal of social reformers and environmental advocates. While talking about watersheds and book learning has its place, immersion in watersheds is necessary to develop firsthand knowledge and real familiarity. Through actions of watershed advocacy, cleanup, restoration, monitoring, and celebration, at-risk students develop citizenship skills

and become assets to their communities and natural world, instead of becoming a detriment.

Differences in Perceptions between Students and Teachers

Only the most pronounced differences between teacher and student perceptions are addressed. Minor differences can be attributed to the fact that teachers had to rank order program characteristics they perceived to be helpful to students using the exact wordings of those characteristics listed in part 2 of their survey. Students on the other hand, were asked in an open-ended comment format to list program characteristics they thought were most helpful in making gains. Semantic differences between teachers and students cropped up, when, in fact, a characteristic mentioned as helpful by one group was implied in the reporting of the other.

With respect to *school attendance*, teachers need to stay tuned in to the down-to-earth needs of students to get outside, have fun, use their hands, and interact with their friends. Here is an example of how semantic differences can cause a misreading of the data. Students reported on the helpfulness of getting out of class and working outside, learning new things, and developing job skills. Among the characteristics which teachers reported to be helpful to students were opportunities to do natural resource monitoring/real science. That in itself implies the helpful characteristics which appealed to students.

Teachers thought it was the more adult nature of the projects, and the responsibilities they had to assume, that motivated students to attend school more. Teachers also thought the personal attention they showed students would be reported by students as helpful. It goes without saying that personalized educational environments and individual attention mean a lot to students and to shaping a supportive school culture. The researcher thinks that at-risk students take these conditions for granted and come to expect them.

With respect to *sense of connectedness to community*, teachers differed from students by not acknowledging the helpfulness of acknowledging student accomplishment. Again, each of the three programs did include formal and informal student recognition activities to support their learning, encourage their achievement, and build their self-esteem. It just wasn't mentioned by teachers in relation to this variable.

For gains in *sense of social responsibility*, students from two of the three programs emphasized the good feeling they got from helping others and working together with them. RCS teachers thought it was opportunities to develop job skills and leadership ability as most helpful. Again, variances were mainly due to differences among the projects themselves. HAWK teachers didn't perceive their students' sense of social responsibility extending beyond the school day and H.A.W.K. activities, while its students did. Students tended to have less sophisticated rationales for what was helpful to them. Teachers had more sophisticated, more mature rationales. At times, they idealized them.

Regardless of the differences, these perceptions of helpfulness and their accompanying rationales were compelling to the participants, be they students or teachers.

Minor differences occurred between the perceptions of teachers and students relative to which program characteristics fostered a *sense of personal efficacy in solving problems*. Students mentioned opportunities for reflection and discussion of what they learned, but teachers did not. They certainly provided occasions for reflection, but they overlooked it as an influential characteristic with this variable. Teachers didn't mention the opportunities for students to cooperate with others, while students did. While students explicitly stated that as helpful, it was implied in the comments and rating of teachers, i.e., habitat restoration and monitoring projects/real science, and real challenges require and are premised on the cooperative involvement of students working together to solve community problems.

RCS teachers didn't perceive their program as emphasizing watershed stewardship, yet their students did. In general, students mentioned sense of cooperation with others as being helpful in developing their *understanding of watershed stewardship*. As with the previous variable, teacher perceptions of the helpfulness of hands-on, habitat restoration and monitoring projects implied opportunities to cooperate with others. Such projects require extensive interpersonal communication and regular debriefing and planning sessions. The mention of increased knowledge/environmental awareness as helpful by students

and its omission by teachers, again can be attributed to teachers feeling such growth is a natural result of repeated participation in service-learning programs with other volunteers and community organizations.

Recommendations for Further Research

1. It is recommended that prior program year attendance data not be gathered on at-risk students attending alternative education schools. While the researcher was ultimately successful in gathering statistically useful, attendance data on fifty-nine of the sixty-five students in the study (91 percent), it wasn't worth the time, effort, heartache, and expense to try to track down a year's worth of attendance data on this population of students. Many at-risk students, by definition, have established patterns of erratic, or nonexistent school attendance; have moved and enrolled in several schools during a given year; have been kicked out of their school or school district, or have even spent time in juvenile detention centers or jail. To make comparison between schools even more complicated, different districts often follow different school calendars, follow different attendance reporting procedures, and use different computer accounting codes.

2. If the researcher is going to trust the self-report nature of survey and interview responses which students give, it stands to reason that their self-reported changes in their school attendance as the result of the service-learning program also be trusted. Indeed, over 85 percent of the students who reported

gains in school attendance after participating in the program, actually made those gains when prior program year data were checked.

3. As alternative education programs experience a high turnover rate of students, it is recommended that a more stable population of at-risk students be studied. At-risk students participating in well-organized, service-learning programs at middle schools or high schools could be studied over a two- or three-year period to see if benefits of service learning accumulate, and under what conditions. Particular attention could be given to growth in their sense of social responsibility and problem-solving ability. Does their articulation of what it means to be socially responsible change over time? In what ways have their service-learning experiences impacted their desire to volunteer outside of their program or the context of their school? Have they actually volunteered additional hours? If so, what motivated them to do so? To what degree was personal interest in the issue(s) addressed by the volunteer program a factor in the at-risk youth's decision to dedicate additional time and energy to it?

4. In what ways are academic grades a factor in any perceived changes in problem-solving ability reported by at-risk youth? In what ways has participation in cooperative group problem solving affected their ability to solve problems of a more personal, psychological nature that affect their ability to achieve goals, particularly those that are academic or career related? If students were asked to identify the problems that face them, in what ways would they say their service experiences have helped them relate what they learned in

understanding and dealing with their own personal/academic problems/
challenges?

5. Future researchers could study adolescent and adult criminals who as part of their sentence and rehabilitation perform compensatory service to the community.

6. The student and teacher survey instruments used in this study now exist in electronic form. The present researcher would be glad to share them with interested researchers for use in tracking data over two or more years. Research using the Internet with advanced communications and display technology could be conducted. Future researchers could set up a web site and have students and teachers access and complete the survey posted to that site. The HTML features of a well-designed web site can download the inputted survey automatically to a database in the researcher's computer. Use of electronic data entry will greatly increase efficiency in data collection and data analysis.

7. A systematic study of programs in a given geographic region could be made. It would give an opportunity for at-risk alternative education high school students and teachers to raise their own level of awareness of environmental restoration service-learning projects being conducted by fellow programs around the state, encourage their use of the Internet, facilitate much-needed networking, and provide them with another real-life opportunity to participate in scientific research for a real purpose. The research and data collection format would pose

a significant, but welcome challenge to at-risk students and their teachers. Participants and projects investigated could be asked to complete electronic survey data, leave voice messages at prompts to specific open-ended messages, and upload still photo and quick time videos of various aspects of their project's environmental community service. They could transmit their own program descriptions and documentation. Its compilation and organization could provide an excellent qualitative study for researchers as well as a useful and inspiring paper document and web site for participants in the field interested in the growth of environmental restoration service-learning activities in California, North America, and throughout the world.

8. A challenging, but exciting data collection technique would be to organize a remotely orchestrated and facilitated focus group interview of student and teacher participants across programs using video conferencing and recording technology. A video-conferenced focus group interview could allow the researcher to facilitate and document a potentially rich sharing of perceptions and responses to environmental restoration service-learning programs. The fact that technology was more central to this type of research might make participation in it appear more interesting and natural to a generation now completely raised with it. It would be its own incentive and work to increase rates of participation.

9. Researchers should be aware that it can take a lot of time, effort, and expense to get signed, informed consent agreements back from the parents of

underage, at-risk high school students. Many parents of at-risk youth are out-of-reach physically or emotionally, or hard to reach, even by school authorities. Plan on making repeated attempts to get them and utilize some form of incentives to encourage participation. Arrangements can be made with teachers to offer extra academic credit to students who become research subjects.

10. A final recommendation is for researchers to be sure to develop shared understanding of basic terminology used in surveys or focus groups with their study participants prior to collecting data from them. Important terms should be presented and defined. This researcher found that had he *checked for understanding*, and clarified or elucidated where necessary, his research subjects would have been able to give more positive responses regarding gains in their sense of personal efficacy in problem solving and understanding of watershed stewardship.

Implications for Action: Personalize Public Schools,
Cultivate Teachers, and Support Service-
Learning Programs

The only limit to our realization of tomorrow will be our doubts of today. Let us move forward with strong and active faith.

Franklin Delano Roosevelt, 1945

If the increased attention and personalization of education provides the vital human bonding, social connection, and accountability that's been missing in our schools, attested to by the students in this study, it stands to reason that

class size reduction efforts should continue on up through sixth grade up to middle and high schools.

Early childhood education and intervention efforts need to be maintained at the other end of the developmental spectrum to minimize the number of at-risk youth in the first place. Many of the traumas and deprivation that still affect the lives of at-risk high school students came about during their early formative years. Hopefully, healthier, more stable families and support networks can arise, that can create and support children who grow up well-nourished nutritionally, emotionally, morally, intellectually, and spiritually. Prevention is infinitely cheaper than intervention.

The findings of this research confirm the at-risk and educational reform literature. The characteristics of effective environmental restoration service-learning programs work together to identify and meet the needs of at-risk youth by supporting the underlying resiliency built into human beings, and fostering it where it is weak. *Predictable and generous funding streams should be provided to people and programs that work.* Money and planning time is needed for motivated teachers to develop, coordinate, and supervise high-quality, service-learning projects for their students. Transportation and insurance liability concerns should be addressed and provided for as pragmatic details of successful projects, not as obstacles to their inception or development.

Support preservice and inservice teacher education programs in service-learning design and implementation. Teachers who support service learning are

risk takers, visionaries, organizers, collaborators, and communicators of school reform, student success, and community renewal. These traits need to be encouraged in teachers who are coming into the profession and supported administratively by those already in their careers.

Advocate for continued educational reform and the use of service learning as one way to engage and give meaning to the learning and lives of at-risk and non-at-risk students who are interested. Site administrators should find ways to adopt the characteristics of effective service-learning programs for at-risk youth so they won't have to drop out of their schools in the first place. Comprehensive high schools should establish active link-ups with alternative high schools, middle and primary schools, local colleges and universities, nonprofit organizations, and governmental agencies that promote meaningful community service-learning opportunities to youth.

Share positive program features and positive service-learning experiences with each other. Efforts should be mounted to build a mutually supportive network of environmental restoration service-learning programs for at-risk high school students. This network can serve alternative education programs and mainstream K-12 schools. Their success stories should be actively covered in the print and electronic media.

Support greater alliances and opportunities for at-risk youth to perform positive, recognized work with mainstream citizens and students. Major corporations such as clothing, soft drink, sports, and entertainment industries and

professional athletes, musicians, and actors that profit off sales to youth should be approached to give back to society in larger measure. They could offer financial and moral support for refurbished schools, meaningful, contextualized, technology supported learning, jobs, community revitalization monies, and entrepreneurial seed grants. Additional tax breaks could be given to private employers to underwrite the coordination of work parties of community volunteers, create part-time jobs for at-risk youth, establish after-school service-learning programs, and build and staff community centers.

Remove impediments to learning and working in real-world settings with the risks, uncertainties, and difficulties that doing real things entail. For example, the state's Office of Safety and Health Affairs (OSHA) has rules that prohibit youth under sixteen years of age from using a step ladder or power tools. At first reading, it appears to be a reasonable law; it aims at protecting underage workers from injury. In actuality, it is a foolish law that hinders underage but capable young people from engaging in painting and construction tasks necessary to getting their job done. For example, underage service-learning students can only paint from the ground up to as high as they can reach. They are not allowed to use ladders, stools, or scaffolds which a thinking person would use in a moment. This regulation needs to be abolished or modified. Safety training and adult supervision should be adequate safeguards to ensure the welfare of these underage service learners. ROP or service-learning programs that adhere to these current regulations are inhibited by them, as adherence

eliminates many opportunities for youth to perform normal, productive work.

A modification of this OSHA rule would help youth mature faster and require that they pay closer attention to their work.

At-risk students who are no longer at risk because they have lived through and understood the root cause of their problems and a way out, who have graduated and successfully transitioned into positive and productive roles in society or higher education, should be called upon to help others still attending alternative schools. They could speak with authority. Young people would be able to identify easily with them and learn from their experiences. This researcher affirms the direction in which public education is moving to offer more experienced-based learning opportunities to students, especially those identified as at risk. Youth need more chances to address real community needs through projects that are both relevant and interesting to them. Students need more opportunities to interact with mature adults and have more authentic communication in their communities. By giving at-risk youth more chances to serve, they can come to feel a greater sense of value and competence, while growing in their sense of what the world is and can be. These outcomes are among the highest hoped for by program developers, teachers, administrators, and community advocates alike; that at-risk youth will come to repossess the dignity, intelligence, integrity, and heart that mark a true human being.

The challenges of removing the barriers of isolation that exist which limit the interaction which alternative education students have with mainstream

elementary and secondary school students is related to the challenge which society faces to change its general attitude toward criminals, summed up in its "lock up and throw away the key" mentality. A present challenge to mainstream society is to consider how it can invite more people who have made mistakes and entered the penal system, to reenter society, perform restitution to the victims they wronged, and participate in their own healing. Healing comes from doing normal things again, from helping others, from doing good, from learning new skills and new attitudes about self and world.

As Lauri Bailey (1997b), founder of the Project HAWK program once said, "You can't be outstanding in your field, if you're never allowed to go out in the field" (interview). It is hard to regain true self-esteem and self-worth without earning it back to oneself through selfless actions. If at-risk youth need positive experiences in their communities; the same is true for criminals. The rationale for suggesting reforms in criminal justice in the context of a dissertation on at-risk youth involved in service learning is that if we fail at-risk youth in our public school system, they are likely to end up in the criminal justice system, sometimes for long periods of their lives at tremendous expense to society at large. The outcomes hoped for with at-risk youth through involvement in environmental restoration service-learning programs are similar to those one would want for their adult counterparts. The concept of restorative justice is gaining a foothold in our consciousness and communities across the nation and world. A community

must learn to own its problems and actively, without jeopardizing communal safety, help people restore their lives to wholeness and integrity again.

The researcher was inspired by the ability of dedicated administrators like Dennis, Lauri, and Julie to embed principles into their respective programs, programs that when properly approached and planned, give opportunities for even the most troubled youth to go through healing. Students can learn the necessary skills and behaviors to get a grip on themselves and make progress in their own personal education and their sense of being a human being in a community of consequence, that they do matter, that we're in this together. It is the researcher's hope that the learning process can become reenergized with meaning and relevance for learners, and society at-large can regain a fundamental belief that at-risk youth are not liabilities to be minimized, but assets to be maximized.

APPENDICES

APPENDIX A
CHARACTERISTICS OF RISK FACTORS IN CHILD,
CAREGIVER, AND FAMILY/ENVIRONMENT

Characteristics of Risk Factors in Child, Caregiver, and Family/Environment

Child Characteristics

Medical problems	Language disorder or delay
Genetic disorders	Physically unattractive
Birth complications	First born
Male gender	Poor coping strategies
Difficult temperament	Social skills deficits
Low intelligence	Minority ethnic background
Uneven or delayed development	Insecure attachment
Extremes of activity level	Poor academic achievement
Attention deficit	Poor self-esteem

Caregiver Characteristics

Depression	Poor parenting models
Schizophrenia	Avoidance coping style
Low intelligence	Hypercritical
Poorly educated	Poor health
Teenage mother	Low self-esteem
Insensitive/unresponsive	Overly harsh/lax discipline
Unavailable	Poor supervision of child
Inappropriate developmental expectations	

Characteristics of Family/Environment

Single parent	Limited financial/material resources
Marital conflict	Many children
Disagreement over childrearing	Low parental education
Inadequate child care resources	Stressful life events
Poor social support network	Chronic poverty
Unemployment or under employed	Urban environment

Source: P. Skelton. 1996. The effects of attributional style, locus of control, and family attributes on the resiliency of at risk intermediate grade school children. Ph.D. diss., University of Southern California, Los Angeles, CA, table 1.

APPENDIX B

COVER LETTER TO PROGRAM DIRECTORS AND
DATA COLLECTION CHECK-OFF LIST

December 1, 1997

Dear Dennis,

Greetings. Thanks again for agreeing to be part of my doctoral study with the University of La Verne. A review of the literature shows a need to know more about the effect of specific service learning program characteristics on participants. The focus of my study is on the characteristics of effective environmental restoration service learning programs in California watersheds, and their impact on at-risk high school students. An expert panel helped me identify your program as being one of the most effective of its kind in the state of California.

This letter confirms your interest in participating in this study and gives some specific information about the site visit, survey administration, and focus group interviews I'd like to conduct on _____. To assist you in your participation, I have prepared and attached a check-off list of important tasks for your attention. Also please find a \$100.00 cash stipend enclosed for you. This is my small way of thanking you for participating in the study, preparing your organization, and helping take care of a few organizational details in anticipation of my visit.

On the day of my visit I'll need to obtain attendance data on your students (prior year and program year), administer a written survey to students and teachers (figure 15-20 min. for each administration), and conduct three, one-and-a-half hour focus group interviews (two for students and one for teachers).

Also enclosed are copies of a cover letter which I need you to give to students and teachers ahead of time, along with an informed consent form which everybody needs to sign. Students under eighteen will need to have their parents or guardians sign it as well. Please keep the informed consent forms on file and turn them in to me the day I visit.

Again, I appreciate your openness and generosity which is allowing me to take
a closer look at your program.

Sincerely,



Peter Scott Moras

P.O. Box 221004
Carmel, CA 92922

(408) 622-9460 home/message
(408) 758-6100 classroom
PETada@aol.com

CHECK LIST FOR PROGRAM DIRECTORS

- _____ send me a packet of archival data which describes and documents your program, via registered mail at least one week in advance of my visit. I will use this background information to customize your surveys and write a narrative description of your program
- _____ participate in a 30-45 minute phone survey (See enclosed "Telephone Interview Protocol for Program Directors" for the questions I'll ask)
- _____ inform your staff and students of the logistics of the study and their responsibilities (their participation will not affect their grade in any way)
- _____ pass out introductory cover letters and informed consent letter to students and teachers ahead of time
- _____ get any students under eighteen to have their parents or guardians sign and return the informed consent forms (keep on file for me to pick up)
- _____ schedule time(s) and room location(s) for me to administer the surveys to all your students and teachers, and to conduct three focus group interviews (2 for students, 1 with your teachers) (survey takes 15-20 minutes to complete - focus group interviews about 90 min.)
- _____ over-recruit ten students to participate in one of two focus groups interviews (5+5) (randomly select these 10 students, we'll talk about accepted methods to get a random sample)
- _____ ask your teachers to participate in a third focus group interview
- _____ set up a second, back-up tape recorder, microphone, and extension cord for me to use the day of the focus group interviews
- _____ Arrange copies or my access to review and photocopy this year's and last year's attendance data on the students participating in your program

APPENDIX C
PHONE INTERVIEW PROTOCOL FOR
PROGRAM DIRECTORS

**WHAT ARE THE DEFINING CHARACTERISTICS OF YOUR
PROGRAM? WHAT MAKES IT SPECIAL?**

Telephone Interview Protocol for Program Directors

=====

INTERVIEWER: _____

PROGRAM NAME: _____

PROGRAM DIRECTOR: _____

DATE: _____ TIME STARTED: _____ FINISHED: _____

=====

Logistics: Prearrange date and time for phone interview with program
 director/coordinator. Approximate length of interview=45 minutes. Have
 in-line tape recording device connected to my telephone for activation at
 the start of the call. Peter to also take backup notes during interview.

QUESTIONS

1. When was the program founded?
 - 1a. By whom?
 - 1b. Why?
2. Where is the program located now? In what cities, schools, watersheds?
- 3a. How is the program funded?
- 3b. What is your budget?
- 4a. What paid positions do you have?

- 4b. Do you have any volunteer staff? If so, how many volunteer staff are there?
- 5a. How are volunteers recruited?
- 5b. How are volunteer staff trained?
6. Please describe the goals of your program? What do you hope to achieve?
7. Please describe the components of your program that help you achieve those goals? What does your program consist of?
- 8a. How are at-risk students identified for participation in your school?
- 8b. How do they find out about the environmental restoration/monitoring program?
9. How do students participate in your environmental restoration activities program?
Is it voluntary? Are students required to participate?

- 10a. How are habitats chosen for restoration in your program?
- 10b. What personnel are responsible for making those decisions?
11. Are students involved in deciding what work is to be done, how, and by whom?
12. How do students get to the restoration/monitoring site?
13. How are students supervised?
14. What steps have been taken to ensure their safety?
15. What insurance coverage provisions are in place in the event of an accident?
16. How is the student's service work evaluated? By themselves? By others?
17. In what ways is the service provided by students acknowledged?
18. What are your ties to the community? Who do you partner with? Who collaborates with you in your program planning and implementation?
19. How is your program evaluated? Who does it? How often?

20. What are your criteria for success or effectiveness?
21. What does your program do extremely well? What are its strengths? What are you really proud of?
22. What aspect of your program are you working to improve or further develop?
23. Where do you want your organization to be in ten years?
24. Is there anything else you'd like to tell me about your program that I haven't asked about yet, or you think I need to know?
25. Do you have any questions of me?

This is the end of the interview. Thanks again for letting me interview you and for allowing me to study your program. Confirm logistics of my visit to access school attendance information, administer the student and teacher surveys, and conduct the focus group interviews. Confirm meeting date, meeting place, and time. Is there a back-up number I can call in case it's hard to get a message through to you?

APPENDIX D

COVER LETTER TO STUDENTS AND
INFORMED CONSENT FORM

Letter to Student Participants

Dear Student,

I wish to invite you as a service learner to participate in a research project I am conducting as a doctoral student at the University of La Verne in Southern California.

A review of the literature shows a need to learn more about the effects of specific characteristics of service learning programs on participants. My particular interest as a researcher and educator is the field of environmental restoration service learning. I want to study and describe the characteristics of effective, representative, environmental restoration service learning projects in California. Your experience with service learning and watershed restoration has offered you this opportunity. My study will further attempt to study and compare the service learning program characteristics students and teachers perceived to be most helpful in making gains in: school attendance, sense of connectedness to community, sense of social responsibility, sense of personal efficacy in solving problems, and understanding of watershed stewardship.

More specifically, if you elect to participate in this study, you will be asked to do one of two things:

- a. complete a twenty minute survey*, "What Really Matters to Students in Environmental Restoration Service Learning Projects",
- b. complete the survey and participate in a one and a half hour focus group interview*

*Students will receive a \$10.00 cash stipend for completing the survey, and an additional \$5.00 for their time if they are randomly selected to participate in the focus group interview.

It is my hope that you will join me in this research endeavor. Please ask any questions you may have about the role I'm inviting you to take in this research.

If you do desire to be part of this study, please read the attached informed consent form carefully. Again, feel free to ask any questions regarding any item on the form. If after reading its conditions you still wish to participate, please sign the sheet. If you are under eighteen years of age, it will require you parent's signature of approval also. Any questions you may have, may be directed to Peter Scott Moras. He can be contacted at the phone number and address listed below.

Thank you.

Sincerely,



Peter Scott Moras

P. O. Box 221004
Carmel, California 93922

(408) 758-6100 phone/fax
(408) 622-9460 message
PETada@aol.com

INFORMED CONSENT FORM

The research project to be conducted by Peter Scott Moras, a doctoral student at the University of La Verne's Department of Organizational Leadership as a study of environmental restoration service learning projects in California, and the program characteristics found to be most helpful to participating high school students has been explained to me. I understand that my participation is completely voluntary.

I further understand that:

All information will remain confidential. My identity will not be revealed. The results will be reported anonymously.

I may skip any item on the written survey, and am free to respond, or not respond, to any of the focus group interview questions that I choose.

I am free to withdraw my consent and to discontinue my participation in the study at any time.

Any questions I have about the study will be answered.

My school attendance records may be sought from my school file.

On the basis of the above statements, I agree to participate in this study. As a participant in this study, my role is to:

- a. complete the "Survey of Student Participants in Environmental Restoration Service Learning Projects", or
- b. complete the "Survey of Student Participants in Environmental Restoration Service Learning Projects", and participate in a one and a half hour focus group interview

*Students will receive a \$10.00 cash stipend for completing the survey, and an additional \$5.00 for their time if they are randomly selected to participate in the focus group interview.

Participant's Signature

Parent's Signature
(only needed if student is under
18 years of age)

Date

Investigator's Signature

P.O. Box 221004
Carmel, California 93922
(408) 622-9460

Date

APPENDIX E
SURVEYS FOR NVHS, RCS, AND
PROJECT HAWK STUDENTS

WHAT REALLY MATTERS TO STUDENTS IN ENVIRONMENTAL RESTORATION SERVICE LEARNING PROJECTS?

As a participant in environmental restoration service learning, you have had some important experiences working with others in your community. I am interested to know which aspects of Nueva Vista High School's program you found most helpful and interesting. This information is important in that it can help Nueva Vista determine the effectiveness of its efforts and improve future programs. Please answer the questions honestly, thinking about your response before you write on the paper.

Part 1. Please complete.

Name: _____ Date: _____

Age: ____ Gender: Male ____ Female _____ Grade in school now: _____

High school/college attending now: _____

High school attended last year: _____

High school teacher/program leader you worked with: _____

Part 2. Briefly describe three major activities you were involved in during your service, and about how much time they took, i.e. 3 hrs. a week for one semester.

1. _____
_____ Hours per/week _____

2. _____
_____ Hours per/week _____

3. _____
_____ Hours per/week _____

4. What do you enjoy most about environmental work? Why?

5. Looking back, what was your favorite, creek-related, science project?
Why?

Part 3. How well do these characteristics describe your program? Circle the number that best expresses your feeling.

	Very true of my program		Somewhat true of my program		Not at all true of my program	
	1	2	3	4	5	6
1. I understood the goals of the project and what was expected of me.					1	2 3 4 5 6
2. I had the opportunity to do natural resource monitoring and be part of real, research projects.					1	2 3 4 5 6
3. I was encouraged to participate in habitat cleanup and habitat enhancement efforts.					1	2 3 4 5 6
4. It gave me a sense of social responsibility.					1	2 3 4 5 6
5. I had the opportunity to face challenges.					1	2 3 4 5 6
6. I could choose from a variety of tasks.					1	2 3 4 5 6
7. Teachers and project leaders were friendly to me.					1	2 3 4 5 6
8. I had a chance to do cross-age mentoring.					1	2 3 4 5 6
9. I felt like I was part of the solution to important social and environmental problems in my community.					1	2 3 4 5 6
10. I was given adult responsibilities.					1	2 3 4 5 6
11. I was free to explore my interests.					1	2 3 4 5 6
12. I had opportunities to volunteer off-campus.					1	2 3 4 5 6
13. I was given time to think about what I was learning from my experiences and to keep a journal.					1	2 3 4 5 6
14. I received recognition for my accomplishments.					1	2 3 4 5 6
15. I had the opportunity to develop job skills.					1	2 3 4 5 6
16. Other (please state) : _____.					1	2 3 4 5 6

Part 4. Please think again about the characteristics of your program and tell us if anything was helpful to you in making certain gains. Circle your response. If you answer "Somewhat" or "A Lot" to any of the questions, please indicate what may have contributed to those gains.

6. Did the program make you want to go to school more? Circle your response.

Not at all Somewhat A lot

6a. What was it about the program that made you want to go to school more?

7. Did the program make you feel like you belonged to your community more?

Not at all Somewhat A lot

7a. What was it about the program that made you feel you belonged to your community more?

8. Did the program motivate you to help out more in your community?

Not at all Somewhat A lot

8a. What was it about the program that motivated you to help out more in your community?

9. Did anything about the program boost your confidence in solving problems?

Not at all Somewhat A lot

9a. What was it about the program that boosted your confidence in solving problems?

10. Did the program help you to be a better watershed protector?

Not at all Somewhat A lot

- 10a. What was it about the program that helped you to be a better watershed protector?
11. After participating in the program, I was absent from school: Circle your response.
- less than before same as before more than before
12. To what extent did you feel more or less engaged in your class work after the program? Circle your answer.
- less than before same as before more than before
12. What did you like most about the program?
13. What changes can be made to improve the program?

Part 5. Is there anything else you want us to know about your experience in the program?

Thank you for taking the time to complete this survey.

WHAT REALLY MATTERS TO STUDENTS IN ENVIRONMENTAL RESTORATION SERVICE LEARNING PROJECTS?

As a participant in environmental restoration service learning, you have had some important experiences working with others in your community. I am interested to know which aspects of River Community School's service learning program you found most helpful and interesting. This information is important in that it can help the school determine the effectiveness of its efforts and improve future programs. Please answer the questions honestly, thinking about your response before you write on the paper.

Part 1. Please complete.

Name: _____ Date: _____

Age: _____ Gender: Male ___ Female ___ Grade in school now: _____

High school/college attending now: _____

High school attended last year: _____

High school teacher/program leader you worked with: _____

Part 2. Briefly describe three major activities you were involved in during your service, and about how much time they took, i.e. 3 hrs. a week for one semester.

1. _____
_____ Hours per/week _____

2. _____
_____ Hours per/week _____

3. _____
_____ Hours per/week _____

4. What do you enjoy most about environmental work? Why?

5. Looking back, what was your favorite community environmental project? Why?

Part 3. How well do these characteristics describe your program? Circle the number that best expresses your feeling.

	Very true of my program		Somewhat true of my program			Not at all true of my program					
	1	2	3	4	5	6					
1. I understood the goals of the project and what was expected of me.						1	2	3	4	5	6
2. I received immediate feedback on the quality of my work.						1	2	3	4	5	6
3. I had the opportunity to develop my leadership skills.						1	2	3	4	5	6
4. I had the opportunity to participate in habitat cleanup and restoration efforts.						1	2	3	4	5	6
5. It gave me a sense of social responsibility.						1	2	3	4	5	6
6. I had the opportunity to face challenges.						1	2	3	4	5	6
7. I could choose from a variety of tasks/modules.						1	2	3	4	5	6
8. Teachers and project leaders were friendly to me.						1	2	3	4	5	6
9. I had a chance to do cross-age mentoring.						1	2	3	4	5	6
10. I felt like I was part of the solution to important social and environmental problems in my community.						1	2	3	4	5	6
11. I was given adult responsibilities.						1	2	3	4	5	6
12. I was free to explore my interests.						1	2	3	4	5	6
13. I had opportunities to volunteer off-campus.						1	2	3	4	5	6
14. I was given time to think about what I was learning from my experiences and to keep a journal.						1	2	3	4	5	6
15. I received recognition for my accomplishments.						1	2	3	4	5	6
16. I had the opportunity to develop job skills and get a job.						1	2	3	4	5	6
17. Other (please state) : _____.						1	2	3	4	5	6

Part 4. Please think again about the characteristics of your program and tell us if anything was helpful to you in making certain gains. Circle your response. If you answer "Somewhat" or "A Lot" to any of the questions, please indicate what may have contributed to those gains.

6. Did the program make you want to go to school more? Circle your response.

Not at all

Somewhat

A lot

6a. What was it about the program that made you want to go to school more?

7. Did the program make you feel like you belonged to your community more?

Not at all

Somewhat

A lot

7a. What was it about the program that made you feel you belonged to your community more?

8. Did the program motivate you to help out more in your community?

Not at all

Somewhat

A lot

8a. What was it about the program that motivated you to help out more in your community?

9. Did anything about the program boost your confidence in solving problems?

Not at all

Somewhat

A lot

9a. What was it about the program that boosted your confidence in solving problems?

10. Did the program help you to be a better watershed protector?

Not at all

Somewhat

A lot

- 10a. What was it about the program that helped you to be a better watershed protector?
11. After participating in the program, I was absent from school: Circle your response.
- less than before same as before more than before
12. To what extent did you feel more or less engaged in your class work after the program? Circle your answer.
- less than before same as before more than before
13. What did you like most about the program?
14. What changes can be made to improve the program?

Part 5. Is there anything else you want us to know about your experience in the program?

Thank you for taking the time to complete this survey.

WHAT REALLY MATTERS TO STUDENTS IN ENVIRONMENTAL RESTORATION SERVICE LEARNING PROJECTS?

As a participant in environmental restoration service learning, you have had some important experiences working with others in your community. I am interested to know which aspects of Project H.A.W.K.'s service learning program you found most helpful and interesting. This information is important in that it can help the project determine the effectiveness of its efforts and improve future programs. Please answer the questions honestly, thinking about your response before you write on the paper.

Part 1. Please complete.

Name: _____ Date: _____

Age: ____ Gender: Male ____ Female ____ Grade in school now: _____

High school/college attending now: _____

High school attended last year: _____

High school teacher/program leader you worked with: _____

Part 2. Briefly describe three major activities you were involved in during your service, and about how much time they took, i.e. 3 hrs. a week for one semester.

1. _____
_____ Hours per/week _____

2. _____
_____ Hours per/week _____

3. _____
_____ Hours per/week _____

4. What do you enjoy most about environmental work? Why?

5. Looking back, what was your favorite creek-related science project or community service effort? Why?

Part 3. How well do these characteristics describe your program? Circle the number that best expresses your feeling.

	Very true of my program		Somewhat true of my program		Not at all true of my program						
	1	2	3	4	5	6					
1.	I understood the goals of the project and what was expected of me.					1	2	3	4	5	6
2..	I was expected to take responsibility for the success and natural consequences of my actions.					1	2	3	4	5	6
3.	I had opportunities to perform habitat cleanup, plant propagation, restoration, and monitoring efforts.					1	2	3	4	5	6
4.	It gave me a sense of connectedness to place.					1	2	3	4	5	6
5	It gave me a sense of social responsibility.					1	2	3	4	5	6
6.	I had the opportunity to face challenges.					1	2	3	4	5	6
7.	I could choose from a variety of tasks.					1	2	3	4	5	6
8.	I felt my teachers showed a personal interest in me.					1	2	3	4	5	6
9.	I felt like I was part of the solution to important social and environmental problems in my community.					1	2	3	4	5	6
10.	I was given positive adult roles and responsibilities.					1	2	3	4	5	6
11.	I was free to explore my interests.					1	2	3	4	5	6
12.	I had opportunities to volunteer off-campus.					1	2	3	4	5	6
13.	I was given time to think about and discuss what I was learning from my experience with others.					1	2	3	4	5	6
14.	I received recognition for my accomplishments.					1	2	3	4	5	6
15.	I had the opportunity to develop job skills and get a job.					1	2	3	4	5	6
16.	Other (please state) : _____.					1	2	3	4	5	6

Part 4. Please think again about the characteristics of your program and tell us if anything was helpful to you in making certain gains. Circle your response. If you answer "Somewhat" or "A Lot" to any of the questions, please indicate what may have contributed to those gains.

6. Did the program make you want to go to school more? Circle your response.

Not at all Somewhat A lot

6a. What was it about the program that made you want to go to school more?

7. Did the program make you feel like you belonged to your community more?

Not at all Somewhat A lot

7a. What was it about the program that made you feel you belonged to your community more?

8. Did the program motivate you to help out more in your community?

Not at all Somewhat A lot

8a. What was it about the program that motivated you to help out more in your community?

9. Did anything about the program boost your confidence in solving problems?

Not at all Somewhat A lot

9a. What was it about the program that boosted your confidence in solving problems?

10. Did the program help you to be a better watershed protector?

Not at all Somewhat A lot

10a. What was it about the program that helped you to be a better watershed protector?

11. After participating in the program, I was absent from school: Circle your response.

less than before

same as before

more than before

12. To what extent did you feel more or less engaged in your class work after the program? Circle your answer.

less than before

same as before

more than before

13. What did you like most about the program?

14. What changes can be made to improve the program?

Part 5. Is there anything else you want us to know about your experience in the program?

Thank you for taking the time to complete this survey.

APPENDIX F
FOCUS GROUP INTERVIEW PROTOCOL
FOR STUDENTS

**WHY SPECIFIC PROGRAM CHARACTERISTICS
WERE HELPFUL
STUDENT FOCUS GROUP
INTERVIEW PROTOCOL**

=====

MODERATOR: _____ ASSISTANT: _____

LOCATION: _____

OF STUDENTS: _____

PROGRAM NAME: _____

PROGRAM DIRECTOR: _____

DATE: _____ TIME STARTED: _____ FINISHED: _____

=====

Logistics: Double-check room set-up. Set up two tape recorders. Make sure a staff member watches the second tape recorder during the interview. Set out table tents. Pass out sign-up sheet, letter of introduction, and informed consent form. Have stipends ready and extra pencils and pens available. Attach sign-up sheet to this master data sheet afterwards.

Greetings. My name is Peter Moras. Thank you for coming today to be part of this interview. My interest as a doctoral student is in the success of environmental restoration service learning programs like _____, and what impact, if any, they have on you the participants. Previous research in service learning points up a need to know more about the effect of specific program characteristics on people who serve. Your honest feedback, one way or another, will help answer that question. Finding out what the program is doing right, and what it needs to work on, can help the _____ project become even more effective in the future.

I'm taping this because it's hard to catch everything you said with notes. Your speaking clearly will ensure that we don't miss a word.

_____ will be assisting me with note-taking. I want to take this opportunity to thank _____ for hosting us and helping with

the arrangements that brought us together. Review restroom and refreshment logistics and indicate that the focus group should take about an hour and a half.

Your participation here and what you say will not impact your class standing or grade in any way. Your responses will remain anonymous. Your names will not be tracked with any of your responses. The table tents are mainly for my benefit and to help our note-taker keep track of the conversation.

Let's begin with some self-introductions. As we go around the circle, please share your name and your year in school.

Initial Questions

1. What have been the major activities you've been involved with? (Open responses from whomever in the group)
2. What activity or aspect of your service have you enjoyed the most? Why? Think. Pair. Share.
3. What aspect of the program or person has been most helpful to you? Why?

=====

(If need to, can ask additional "warm-up" questions below)

4. What do you do differently now that you have gone through a program like this?
5. If you had to describe in one or two sentences to someone who didn't know about the _____ project, what would you say?
6. What did you expect going into the program, and what did you actually learn?
7. Would you recommend this program to someone else? If so, why?

Research Questions

(Remember to pause more and wait longer into the silence. To fill the silence, when appropriate, ask "Are there any other responses to that?")

School Attendance

8. How have _____ activities affected the way you feel about going to school? If it had, can you give an example? If not, why do you think this was so?
9. Would you say the kids you knew in the _____ project were more motivated to go to school than the kids who were not in the project? If yes, what about the project made them more motivated to go to school?

Feeling Connected to your Community

10. Who is your community?
11. In what ways do you relate to your community through the _____ project? What kind of roles do you see yourself taking?
12. What kind of acknowledgement do you receive?
13. How do you feel about your community now that you have participated in the _____ program? Please explain.

Feeling Responsible to Others Where you Live

14. Was there anything about this experience that made you want to volunteer in the future? Or not?
15. What other things are you interested in doing for your community now that you have done this project?

Ability to Solve Problems

16. I want you to think about the most important environmental or social problems in your community. What would you say is the most serious, the most important? What causes it? Have each person share.

17. In what ways has this program given you more confidence in tackling problems like this in your life/ If yes, "Tell me a little about how it has?" If not, "How come?"
18. O.K. Now think about the problems in the world around you. Has this program given you any more confidence in tackling them? If yes, "Can you mention one?" If no, "How come?"

**Feeling Responsible to the Land—
Being a Caretaker of the Watershed**

19. How would you define a "watershed"?
20. What watershed are we sitting in now?
21. To what degree would you call yourself a "watershed protector"? How do you see yourself being a "watershed protector"?
22. Who else in your community is one?

Closing Questions

23. What do you want your project to be doing over the next ten years?
24. Do you have any suggestions to make the program better?
25. Is there anything else I should have asked?

This concludes my focus group questions.

Do you have any questions of me?

Thank the group again and pass out the stipends as a token of my appreciation for the time and effort they put out to attend this focus group interview.

APPENDIX G
COVER LETTER FOR TEACHERS

November 30, 1997

Letter to Teacher Participants

Dear Teacher,

I wish to invite you as a teacher of service learning to participate in a research project I am conducting as a doctoral student at the University of La Verne in Southern California.

A review of the literature shows a need to learn more about the effects of specific characteristics of service learning programs on participants. My particular interest as a researcher and educator is the field of environmental restoration service learning. I want to study and describe the characteristics of effective, representative, environmental restoration service learning projects in California. Your experience with students doing service learning and watershed restoration has offered you this opportunity. My study will further attempt to study and compare the service learning program characteristics students and teachers perceived to be most helpful in making gains in: school attendance, sense of connectedness to community, sense of social responsibility, sense of personal efficacy in solving problems, and understanding of watershed stewardship.

More specifically, if you elect to participate in this study, you will be asked to do two things:

- a. complete a twenty minute survey*, "What Really Matters to Teachers in Environmental Restoration Service Learning Projects",
- b. participate in a one and a half hour focus group interview*

*Teachers will receive a \$20.00 cash stipend for completing the survey and participating in the focus group interview.

It is my hope that you will join me in this research endeavor. Please ask any questions you may have about the role I'm inviting you to take in this research.

If you desire to be part of this study, please read the attached informed consent form carefully. Again, feel free to ask any questions regarding any item on the form. If after reading its conditions you still wish to participate, please sign the sheet. Any questions you may have, may be directed to Peter Scott Moras. He can be contacted at the phone number and address listed below.

Thank you.

Sincerely,



Peter Scott Moras

P. O. Box 221004
Carmel, California 93922

(408) 758-6100 phone/fax
(408) 622-9460 message
PETada@aol.com

APPENDIX H
SURVEYS FOR NVHS, RCS, AND
PROJECT HAWK TEACHERS

**A TEACHER'S PERSPECTIVE ON STUDENT PARTICIPATION IN
ENVIRONMENTAL RESTORATION SERVICE LEARNING PROJECTS
WHAT REALLY MATTERS?**

As a participant in environmental restoration service learning, you have had some important experiences with your students working with others in your community. I am interested to know your perceptions of Nueva Vista High School's use of Galindo Creek for project-based studies, and what impact, if any, the program has had on your students. Your responses will shed light on the program characteristics you think have been most beneficial to them. This information is also important in that it can help Nueva Vista determine the effectiveness of their efforts and improve future programs. Please answer the questions honestly.

Part 1. Please complete.

Name: _____ Date: _____

Class/Section taught: _____

High school teaching at now: _____

School taught at last year: _____

Approximate number of students you worked with doing restoration:

Part 2. Briefly describe three major activities your students are doing/have done for Galindo Creek, and about how much time they took, i.e. 3 hrs. a week for one semester.

1. _____
_____ Hours per/week _____

2. _____
_____ Hours per/week _____

3. _____
_____ Hours per/week _____

4. What do you think your students enjoyed most about environmental work?

5. Looking back, what was their favorite experience with the creek project?
Why?

Part 3a. How well do these characteristics describe the program your students participated in? Circle the number that best expresses your feeling.

	Very true of their program		Somewhat true of their program		Not at all true of their program	
	1	2	3	4	5	6
1. They understood the goals of the project and what was expected of them.	1	2	3	4	5	6
2. They had the opportunity to do natural resource monitoring and be part of real, research projects.	1	2	3	4	5	6
3. They were encouraged to participate in habitat cleanup and habitat enhancement efforts.	1	2	3	4	5	6
4. They were given a sense of social responsibility.	1	2	3	4	5	6
5. They had the opportunity to face challenges.	1	2	3	4	5	6
6. They could choose from a variety of tasks.	1	2	3	4	5	6
7. Teachers and project leaders were friendly to students.	1	2	3	4	5	6
8. They had a chance to do cross-age mentoring.	1	2	3	4	5	6
9. They felt like they were part of the solution to important social and environmental problems in their community.	1	2	3	4	5	6
10. They were given adult responsibilities.	1	2	3	4	5	6
11. They were free to explore their interests.	1	2	3	4	5	6
12. They had opportunities to volunteer off-campus.	1	2	3	4	5	6
13. They were given time to think about what they were learning from their experiences and to keep a journal.	1	2	3	4	5	6
14. They received recognition for their accomplishments.	1	2	3	4	5	6
15. They had the opportunity to develop job skills.	1	2	3	4	5	6
16. Other (please state) : _____.	1	2	3	4	5	6

Part 3b. Using the list on the previous page and the lines next to each question below, indicate the characteristics you think were most helpful to students.

6. Did any of these make them want to go to school more? Yes ____ No ____

- 6a. If yes, which ones? Name up to three by writing its number on the lines.
What was most useful? ____ What was the second most useful? ____
What was the third most useful? _____
7. Did any of these make them feel like they belonged to their community more? Yes ____ No ____
- 7a. If yes, which ones? Name up to three by writing its number on the lines.
What was most useful? ____ What was the second most useful? ____
What was the third most useful? _____
8. Did any of these motivate them to help out more in their community? Yes ____ No ____
- 8a. If yes, which ones?
What was most useful? ____ What was the second most useful? ____
What was the third most useful? _____
9. Did any of these boost their confidence in solving problems? Yes ____ No ____
- 9a. If yes, which ones?
What was most useful? ____ What was the second most useful? ____
What was the third most useful? _____
10. Did any of these help them to be better watershed protectors? Yes ____ No ____

was the third most useful? _____

11. After the program, they were absent from school: Circle your response.
 less than before same as before more than before
12. To what extent were students more or less engaged in their class work after
 the program? Circle your answer.

Less Engaged

No change

More Engaged

1

2

3

4

5

6

13. What do you think they liked most about the program?

14. What changes can be made to improve the program?

Part 5. Is there anything else you want us to know about your students' experience in the program?

Thank you for taking the time to complete this survey.

**A TEACHER'S PERSPECTIVE ON STUDENT PARTICIPATION IN
ENVIRONMENTAL RESTORATION SERVICE LEARNING PROJECTS
WHAT REALLY MATTERS?**

As a participant in environmental restoration service learning, you have had some important experiences with your students working with others in your community. I am interested to know your perceptions of River Community School's service learning program and project-based studies, and what impact, if any, the program has had on your students. Your responses will shed light on the program characteristics you think have been most beneficial to them. This information is also important in that it can help determine the effectiveness of their efforts and improve future programs. Please answer the questions honestly.

Part 1. Please complete.

Name: _____ Date: _____

Class/Section taught: _____

High school teaching at now: _____

School taught at last year: _____

Approximate number of students you worked with doing restoration:

Part 2. Briefly describe three major community service activities your students are doing/have done with their environment, and about how much time they took, i.e. 3 hrs. a week for one semester.

1. _____
_____ Hours per/week _____

2. _____
_____ Hours per/week _____

3. _____
_____ Hours per/week _____

4. What do you think your students enjoyed most about environmental work?

5. Looking back, what was their favorite community environmental project?
Why?

Part 3a. How well do these characteristics describe the program your students participated in? Circle the number that best expresses your feeling.

	Very true of their program		Somewhat true of their program		Not at all true of their program	
	1	2	3	4	5	6
1. They understood the goals of the project and what was expected of them.	1	2	3	4	5	6
2. They received immediate feedback on their work.	1	2	3	4	5	6
3. They had the opportunity to develop their leadership skills.	1	2	3	4	5	6
4. They got a hands-on environmental education while engaged in habitat cleanup and restoration efforts.	1	2	3	4	5	6
5. They were given a sense of social responsibility.	1	2	3	4	5	6
6. They had the opportunity to face challenges.	1	2	3	4	5	6
7. They could choose from a variety of tasks/modules.	1	2	3	4	5	6
8. Teachers and project leaders were friendly to students.	1	2	3	4	5	6
9. They had a chance to do cross-age mentoring.	1	2	3	4	5	6
10. They felt like they were part of the solution to important social and environmental problems in their community.	1	2	3	4	5	6
11. They were given adult responsibilities.	1	2	3	4	5	6
12. They were free to explore their interests.	1	2	3	4	5	6
13. They had opportunities to volunteer off-campus.	1	2	3	4	5	6
14. They were given time to think about what they were learning from their experiences and to keep a journal.	1	2	3	4	5	6
15. They received recognition for their accomplishments.	1	2	3	4	5	6
16. They had opportunities to develop job skills and get a job.	1	2	3	4	5	6
17. Other (please state) : _____.	1	2	3	4	5	6

Part 3b. Using the list on the previous page and the lines next to each question below, indicate the characteristics you think were most helpful to students.

6. Did any of these make them want to go to school more? Yes ___ No ___

6a. If yes, which ones? Name up to three by writing its number on the lines.
What was most useful? ___ What was the second most useful? ___
What was the third most useful? ___

7. Did any of these make them feel like they belonged to their community more?
Yes ___ No ___

7a. If yes, which ones? Name up to three by writing its number on the lines.
What was most useful? ___ What was the second most useful? ___
What was the third most useful? ___

8. Did any of these motivate them to help out more in their community?
Yes ___ No ___

8a. If yes, which ones?
What was most useful? ___ What was the second most useful? ___
What was the third most useful? ___

9. Did any of these boost their confidence in solving problems? Yes ___ No ___

9a. If yes, which ones?
What was most useful? ___ What was the second most useful? ___
What was the third most useful? ___

10. Did any of these help them to be better watershed protectors?
Yes ___ No ___

10a. If yes, which ones?
What was most useful? ___ What was the second most useful? ___
What was the third most useful? ___

11. After the program, they were absent from school: Circle your response.

less than before

same as before

more than before

12. To what extent were students more or less engaged in their class work after the program? Circle your answer.

Less Engaged

No change

More Engaged

1

2

3

4

5

6

13. What do you think they liked most about the program?

14. What changes can be made to improve the program?

Part 5. Is there anything else you want us to know about your students' experience in the program?

Thank you for taking the time to complete this survey.

**A TEACHER'S PERSPECTIVE ON STUDENT PARTICIPATION IN
ENVIRONMENTAL RESTORATION SERVICE LEARNING PROJECTS
WHAT REALLY MATTERS?**

As a participant in environmental restoration service learning, you have had some important experiences with your students working with others in your community. I am interested to know your perceptions of Project H.A.W.K.'s service learning program and its project-based studies, and what impact, if any, the program has had on your students. Your responses will shed light on the program characteristics you think have been most beneficial to them. This information is also important in that it can help determine the effectiveness of their efforts and improve future programs. Please answer the questions honestly.

Part 1. Please complete.

Name: _____ Date: _____

Class/Section taught: _____

High school teaching at now: _____

School taught at last year: _____

Approximate number of students you worked with doing restoration:

Part 2. Briefly describe three major community service activities your students are doing/have done with their environment, and about how much time they took, i.e. 3 hrs. a week for one semester.

1. _____
_____ Hours per/week _____

2. _____
_____ Hours per/week _____

3. _____
_____ Hours per/week _____

4. What do you think your students enjoyed most about environmental work?

5. Looking back, what was their favorite creek-related science project or community service effort? Why?

Part 3a. How well do these characteristics describe the program your students participated in? Circle the number that best expresses your feeling.

	Very true of their program		Somewhat true of their program		Not at all true of their program	
	1	2	3	4	5	6
1. They understood the goals of the project and what was expected of them.	1	2	3	4	5	6
2. They were expected to take responsibility for the success and natural consequences of their actions.	1	2	3	4	5	6
3. They had opportunities to perform habitat cleanup, plant propagation, restoration, and monitoring efforts.	1	2	3	4	5	6
4. They got a sense of connectedness to place.	1	2	3	4	5	6
5. They were given a sense of social responsibility.	1	2	3	4	5	6
6. They had the opportunity to face challenges.	1	2	3	4	5	6
7. They could choose from a variety of tasks.	1	2	3	4	5	6
8. Teachers showed a personal interest in their students.	1	2	3	4	5	6
9. They felt like they were part of the solution to important social and environmental problems in their community.	1	2	3	4	5	6
10. They were given positive adult roles and responsibilities.	1	2	3	4	5	6
11. They were free to explore their interests.	1	2	3	4	5	6
12. They had opportunities to volunteer off-campus.	1	2	3	4	5	6
13. They were given time to think about and discuss what they were learning from their experiences with others.	1	2	3	4	5	6
14. They received recognition for their accomplishments.	1	2	3	4	5	6
15. They had opportunities to develop job skills.	1	2	3	4	5	6
16. Other (please state) : _____.	1	2	3	4	5	6

Part 3b. Using the list on the previous page and the lines next to each question below, indicate the characteristics you think were most helpful to students.

6. Did any of these make them want to go to school more? Yes ___ No ___

6a. If yes, which ones? Name up to three by writing its number on the lines.
What was most useful? ___ What was the second most useful? ___
What was the third most useful? ___

7. Did any of these make them feel like they belonged to their community more?
Yes ___ No ___

7a. If yes, which ones? Name up to three by writing its number on the lines.
What was most useful? ___ What was the second most useful? ___
What was the third most useful? ___

8. Did any of these motivate them to help out more in their community?
Yes ___ No ___

8a. If yes, which ones?
What was most useful? ___ What was the second most useful? ___
What was the third most useful? ___

9. Did any of these boost their confidence in solving problems?
Yes ___ No ___

9a. If yes, which ones?
What was most useful? ___ What was the second most useful? ___
What was the third most useful? ___

10. Did any of these help them to be better watershed protectors?
Yes ___ No ___

10a. If yes, which ones?
What was most useful? ___ What was the second most useful? ___
What was the third most useful? ___

11. After the program, they were absent from school: Circle your response.
less than before same as before more than before

12. To what extent were students more or less engaged in their class work after the program? Circle your answer.

Less Engaged

No change

More Engaged

1

2

3

4

5

6

13. What do you think they liked most about the program?

14. What changes can be made to improve the program?

Part 5. Is there anything else you want us to know about your students' experience in the program?

Thank you for taking the time to complete this survey.

APPENDIX I
FOCUS GROUP INTERVIEW PROTOCOL
FOR TEACHERS

**WHY SPECIFIC PROGRAM CHARACTERISTICS
WERE HELPFUL
TEACHER FOCUS GROUP
INTERVIEW PROTOCOL**

=====

MODERATOR: _____ ASSISTANT: _____

LOCATION: _____

OF TEACHERS: _____

PROGRAM NAME: _____

PROGRAM DIRECTOR: _____

DATE: _____ TIME STARTED: _____ FINISHED: _____

=====

Logistics: Double-check room set-up. Set up two tape recorders. Make sure a staff member watches the second tape recorder during the interview. Set out table tents. Pass out sign-up sheet, letter of introduction, and informed consent form. Have stipends ready and extra pencils and pens available. Attach sign-up sheet to this master data sheet afterwards.

Greetings. My name is Peter Moras. Thank you for coming today to be part of this interview. My interest as a doctoral student is in the success of environmental restoration service learning programs like _____, and what impact, if any, they have on the participants. Previous research in service learning points up a need to know more about the effect of specific program characteristics on people who serve. Your honest feedback, one way or another, will help answer that question. Finding out what the program is doing right, and what it needs to work on, can help the _____ project become even more effective in the future.

I'm taping this because it's hard to catch everything you said with notes. Your speaking clearly will ensure that we don't miss a word. _____ will be assisting me with note-taking. I want to take this opportunity to thank _____ for hosting us and helping with the arrangements

that brought us together. Review restroom and refreshment logistics and indicate that the focus group should take about an hour and a half.

Your participation here and what you say will not impact your class standing or grade in any way. Your responses will remain anonymous. Your names will not be tracked with any of your responses. The table tents are mainly for my benefit and to help our note-taker keep track of the conversation.

Let's begin with some self-introductions. As we go around the circle, please share your name and your year in school.

Initial Questions

1. What have been the major activities your students have been involved with?
(Open responses from whomever in the group)
2. What activity or aspect of their service have you enjoyed the most? Why?
Think. Pair. Share.
3. What aspect of the program or person was most helpful to them? Why?

=====

(If need to, can ask additional "warm-up" questions below)

4. If you had to describe in one or two sentences to someone who didn't know about the _____ project, what would you say?
5. What do you think your students expected going into the program, and what do you think they actually learned?
6. What do they do differently now that they have gone through a program like this?
7. Would you recommend this program to someone else? If so, why?

Research Questions

(Remember to pause more and wait longer into the silence. To fill the silence, when appropriate, ask "Are there any other responses to that?")

School Attendance

8. Did _____ activities affect how your students felt about going to school? If yes, can you give an example? If no, why do you think this was so?
9. Would you say the kids you knew in the _____ project were more motivated to go to school than the kids who were not in the project? If yes, what about the project made them more motivated to go to school?

Feeling Connected to their Community

10. How do you think your students define community?
11. Has the _____ project affected the way your students feel about their community? If so, in what ways?
12. In what ways do they relate to their community through the _____ project? What kind of roles do you see them taking?
13. Are they getting the acknowledgement they deserve?

Feeling Responsible to Others Where they Live

14. Do you think they are likely to volunteer in the future as a result of their experiences with the _____ project? What was it about this experience that made them want to volunteer in the future? Or not?
15. Is there anything your students want to do for their community now that they have done this project?

Ability to Solve Problems

16. "This is going to be a group exercise." I want you to think about the most

important environmental or social problem your students face. Give think time. O.K. Now I want each one of you to tell which problem you think is most important to your students." (If they want, they can get into possible causes and solutions. Go down through the rest of the list off the easel/board.)

17. Has this program given students more confidence in tackling problems in their life? If yes, "Tell me a little about how it has." If no, "How come?"
18. O.K. Now think about the problems in the world around your students. Has this program given them any more confidence in dealing with them? If yes, "Can you mention one example?" If not, "How come?"

**Feeling Responsible to the Land—
Being a Caretaker of the Watershed**

19. How would you define a "watershed"?
20. What watershed are we sitting in now?
21. To what degree would you call your students "watershed protectors"? In what ways?
22. Who else in your community is one?

Closing Questions

23. What do you want your project to be doing over the next ten years?
24. Do you have any suggestions to make the program better?
25. Is there anything else I should have asked?

This concludes my focus group questions.

Do you have any questions of me?

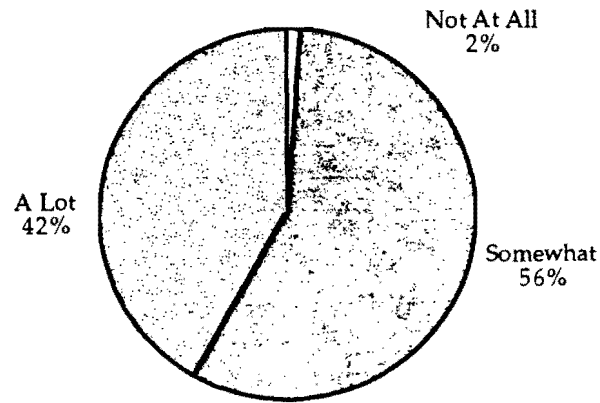
Thank the group again. Express my appreciation for the time and effort they put out to attend this focus group interview.

APPENDIX J

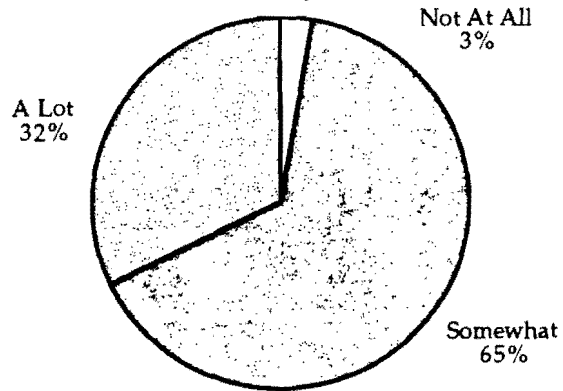
PIE CHARTS OF STUDENT SURVEY RESPONSES,
BY TOTAL STUDY

Total Student Responses
March 1998
(N=65)

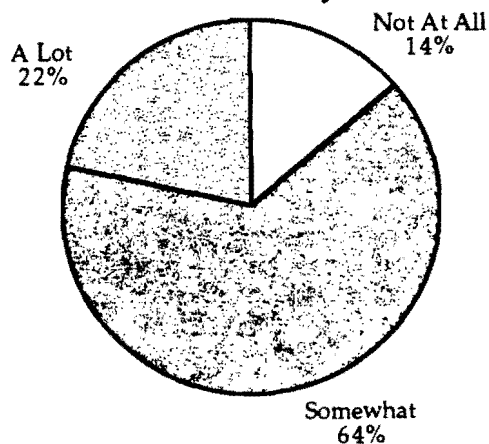
Did the program make you want to go to school more?



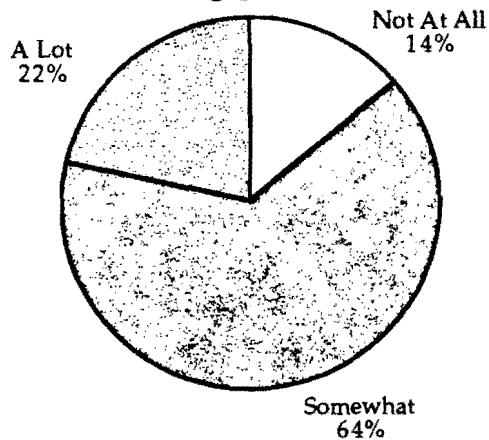
Did the program make you feel like you belonged to your community more?



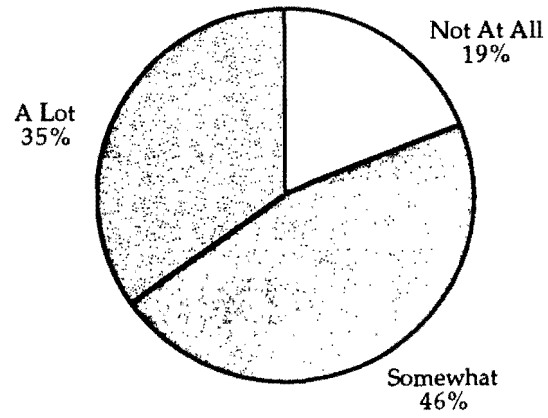
Did the program motivate you to help out more in your community?



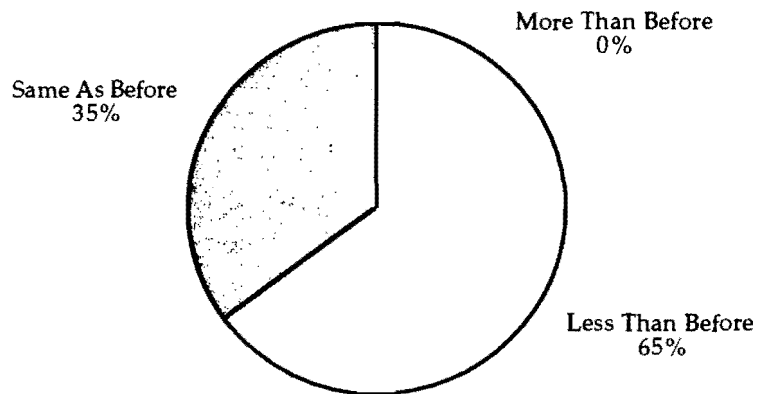
Did anything about the program boost your confidence in solving problems?



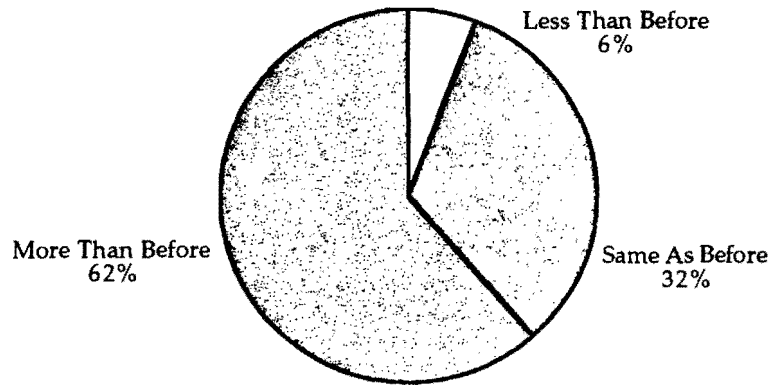
Did the program help you to be a better watershed protector?



After participating in the program, I was absent from school:



To what extent did you feel more or less engaged in your classwork after the program?



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