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Source: *English Education*, Vol. 31, No. 2 (Jan., 1999), pp. 135-149

Published by: [National Council of Teachers of English](#)

Stable URL: <http://www.jstor.org/stable/40172974>

Accessed: 24/10/2011 01:02

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Integrated Curriculum and Service Learning: Linking School-Based Knowledge and Social Action ---

Kathleen Kesson and Celia Oyler

In Henrik Ibsen's *An Enemy of the People*, the people of a small Norwegian village turn brutally against one of their citizens, a Dr. Stockmann, who reveals information that the townsfolk would rather keep secret. Stockmann has begun to be concerned with the suspicious cases of typhoid and gastro-intestinal illness that seem to befall some of the people who partake of the supposedly curative waters of the local springs, so he has the water analyzed and learns of the presence of infectious organic matter.

As the play progresses, people gradually realize their vested economic interests in keeping the information of poisoned waters a secret. The fortunes of everyone are irrevocably tied up with the development of the springs, and, therefore, with the suppression of this "dangerous knowledge."

In a high school English classroom in the far northeastern corner of Oklahoma, students read *An Enemy of the People*. Their teacher, Judith David, uses the text to explore ethical dilemmas and moral outrage, "official knowledge," and democratic rule. The themes in this play are not unfamiliar to these students; in fact, they know all about these types of complex moral dilemmas through first-hand experience. They live their lives within an environmental drama that contains many of the archetypal events and characters of Ibsen's play. We visited these students and their teachers in May of 1998, and talked with them for a week about their lives. The story that follows is about their land, their community, their history,

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their new found activism, and the remarkable efforts of a handful of teachers and a guidance counselor to help link their lived experience and their school-based learning through the medium of a service learning project.

The History of Tar Creek

Ottawa County is on land that at one time was largely populated by members of several Indian tribes: the Quapaw, Seneca-Cayuga, Miami, Modoc, Wyandotte, Ottawa, Peoria, Cherokee, and Eastern Shawnee. Around the turn of the century, before Oklahoma became a state, lead and zinc were discovered and eventually over 300 mines were opened. Over the next few decades, hundreds of thousands of tons of lead and zinc were extracted from a forty square mile tract in northeastern Oklahoma, a site that includes the towns of Picher, Cardin, North Miami, Quapaw and Commerce. In the early days, this area was a mining boomtown, and the local economy flourished. By the early 1960's, mining activity slowed and came to a halt by 1974. Since that time, the area has been economically depressed.

When the mines were shut down, most of the hundreds of mineshafts were not sealed, permitting surface water and ground water to fill the underground caves and shafts. The acidic water reacted with the surrounding rock, causing many of the metals present to dissolve. This resulted in high concentrations of zinc, lead, and cadmium in the water. In 1979, acid mine water with high concentrations of heavy metals began to discharge to the surface from boreholes and the abandoned mine shafts, contaminating the surface water in Tar Creek.

Because of the contamination, Tar Creek was named in 1981, along with an abandoned asbestos mine in Globe, Arizona, as the nation's worst hazardous waste site. The Environmental Protection Agency (EPA) determined that the acid water from the mines threatened the water quality of the entire county if it were to seep into the Roubidoux aquifer through the hundreds of open drill holes that remain. Tar Creek itself runs orange in many places and neon green where sewage is flowing into it. Residents here remember when their parents and grandparents used to fish in Tar Creek—now there are few living fish in the waters. The city leaders have responded to the visually disturbing site of the discolored water by building walls on the sides of the bridges. Signs saying "Tar Creek" have been removed. Like the folks in Ibsen's village, many people would rather ignore or hide "dangerous information."

Abandoned mines honeycomb the entire forty square mile site. When the companies dug for lead and zinc, they were required to leave "pillars" of earth for support. When the mining companies pulled out, they loaned

their heavy equipment to the workers who went in and mined the pillars, leaving no support for the ground above. Periodically, when the mines fill up with water, these areas collapse, leaving huge sinkholes. Different field surveys indicate that hundreds of shafts have already collapsed. While there are few reported instances of destruction of buildings and roads, eighteen homes were affected by one collapse just north of Picher High School in 1967. In this collapse, the ground dropped approximately 25 feet, and five minor injuries resulted. One local mother remembers that when she was five years old her family's house "fell in." Police and fire department officials had to come to help them figure out how to get out.

Aside from the toxicity of the ground waters and the destructive nature of the sinkholes, acres and acres of mine tailings (chat) left over from years of mining operations dot the landscape. There are places that look like a moonscape—dusty gray mountains and lifeless fields stretch as far as the eye can see. The chat piles, some of them 200 feet high, are sources of lead poisoning, which can cause cognitive disabilities, decreased growth, hyperactivity, and impaired hearing. These areas of lead tailings are mostly unfenced, and adults and youth ride motorized bikes up and down the slopes of the chat piles. Lead levels in local children are unusually high and extremely dangerous. Between 1994 and 1995, the EPA tested 2055 families' yards and found that 65% had concentrations of lead in at least one part of the yard at or above 500 parts per million (EPA, 1997). The EPA's Emergency Response Branch investigated day care centers, schools, and parks for mining waste contamination. Approximately 50% of the samples contained elevated levels of lead. The Oklahoma Department of Health conducted screenings of children in the mining area for blood lead poisoning in 1995. The results, when extrapolated, indicated that 21% of the children could have blood levels at or exceeding 10 micrograms per decileter (ug/dL). The Centers for Disease Control say that children experience adverse health effects when blood lead levels are at 10 ug/dL. The effects of lead poisoning are lifelong:

Exposure to lead is particularly dangerous to the unborn and to young children less than 72 months of age. Lead can effect [sic] virtually every system in the body. Lead is particularly harmful to the developing brain and nervous system of fetuses and young children. (EPA, 1997)

Undoubtedly, the chat piles, as tempting places to play, contribute to this problem. For a long time, the chat has been a cheap or free source of fill for many projects. Much of it has been utilized in the construction of driveways, roadbeds, playgrounds, and baseball fields. Now the EPA has begun to dig up yards and driveways that are contaminated with the chat, and take the debris to a highly contaminated area for storage. One of the great visual ironies here is the sight of orange-fenced soil removal projects

going on immediately adjacent to productive looking vegetable gardens. "Food for thought," commented one of the teachers who was our tour guide!

Health concerns are a major issue in the county. The cancer rates for the area are remarkably higher than that of the rest of the state, and the state is higher than the rest of the nation. The little town of Miami even has its own dialysis unit. Anecdotal evidence abounds about people leading quite healthy lives who then become afflicted by immune deficiency problems, various cancers, kidney disease, and the symptoms associated with lead poisoning. It's hard to tell what the worst source of the pollutants is; in addition to the poisoned creeks, chat piles, sinkholes, and contaminated wells, there is a solid waste incinerator in the area, and an asbestos waste from an abandoned tire plant. Local environmental activists are attempting to get health studies done to determine the extent of the problems. Surprisingly, there has been little public outcry or activism over the host of environmental problems in the area. Until 1995, that is, when Guidance Counselor Rebecca Jim organized the Cherokee Volunteer Society, a co-curricular service learning club. Then things began to change!

The Cherokee Volunteers

Though the Cherokee Volunteers are affiliated with the Indian Youth Leadership Council, and have the backing of the Cherokee Nation, many non-Indian students participate. One of the important outcomes of the group's activities seems to be the intercultural understanding and appreciation for differences that happens when students both work together on projects of significant personal and group interest and study native history and tradition together. The first project taken on by the Cherokee Volunteers, a group that draws from both the middle school and the high school, was a community recycling project. The next year, they decided, with some financial assistance from the Cherokee Council, to build a traditional council house in the yard of the school. The third year of their existence, they began to tackle the serious environmental problems in their community. All of the youth and adults attribute the growing interest in local environmental problems to Rebecca Jim, who is a local environmental activist, a Clanmother with the Tribal Efforts Against Lead based with the Quapaw Tribe, and the school Guidance Counselor.

Ms. Jim's office is a hub of daily activity. Students cram themselves in here during their lunch hours to plan, research, strategize, organize, and socialize. Though Tar Creek is at the center of their efforts, other environmental issues concern them as well. The students we spoke with are filled with purpose, because these issues touch all of their lives in important ways. One boy lives with his grandfather who worked at a poultry-packing plant not far from Miami. This fifty-two year old man contracted a brain disease

and can no longer walk, talk, or communicate. The boy got involved with the group because of their willingness to take on the local poultry packing plant, which discharged toxins (200,000 pounds of turkey waste) into the river. Ms. Jim tells us about one boy who began to make some disturbing connections when he was doing research on the computer:

He's learning about the lead poisoning and the effects of the lead poisoning, and he says, "You know" (you can just see the lights go on) "you know, I'm hyperactive, and I live on Tar Creek." The lights are going on. So he's another one of the dedicated kids who is always going to be there and always going to be doing something. Because he can see how it touched him and he may not be able to do anything about what happened to him, but they feel an urgency to help other kids.

Another girl, who has a sister with leukemia, got concerned about water issues because of the bad water in her family's home.

One of the members we interviewed at length explained how some students end up joining this community activist project:

I used the same method Ms. Jim did [to get my friends to join]. She hooked me into it by showing me all the interesting facts and stuff. And I got interested, and my best friend got interested. And I hooked the other students by doing that and showing them that. So then they just showed up. Last year we had 20 students, this year we have over 50.

Many of the students we interviewed did not know much about lead poisoning or Tar Creek before encountering the recent work of the Cherokee Volunteer Society. It should be understood that although the Environmental Protection Agency (EPA) initially named Tar Creek a Superfund Site in 1983, it was chiefly ignored by the federal government and local leaders alike although Tar Creek was rated significantly more toxic than Love Canal. (It should be noted that 80% of the current Superfund site is on Quapaw land.) It was only in 1997 that the EPA re-opened the site and staffed a local Superfund crew.

Nancy Scott, an employee of the Cherokee Nation, and the coordinator for Cherokee National Learn and Serve (Service Learning Projects) explained the impact she saw as these young people began organizing public awareness projects:

There was a lot of denial in that community before the students started this Tar Creek project, I mean, that was something you just never discussed. It was there in the community, everybody knew, but nobody really talked about it. But, you know. . .to me, the students are the key to getting Tar Creek . . . cleaned up or improved or whatever is going to happen. They're the ones that are going to do something about it. Because, you know, the parents, the older people, they've already lived through that. So, that's why I like the students being involved in that, I

think they're going to keep it going after they graduate from high school, I think they're going to stay involved. Because those kids, I guess you probably noticed, they can say *anything* about Tar Creek.

Curriculum and Changes

As anyone who has spent much time in schools knows, curriculum and instruction are usually organized in quite traditional ways at the middle school and high school levels. Teachers are responsible for specific subjects, subjects are generally taught in isolation from one another, specified periods of time are allotted for these separate subjects, and subject matter is only tangentially related to student experiences outside of school. As well, there is usually not systemic school-wide curriculum coordination. Despite years of research and development on curriculum integration, schools remain amazingly resistant to broad-based, systemic reorganization necessary for curriculum integration.

Curriculum integration means different things to different people, and there are many different degrees of sophistication in its implementation. At its most basic level, it is understood as “thematic” curriculum, a model in which teachers choose a theme such as “The Rain Forest” and design subject oriented learning activities that relate to the theme. This approach reflects what Susan Drake (1993) calls a multidisciplinary model. At its most sophisticated level, curriculum integration suggests that learning emerges from the students’ own questions about the world, is driven by their own problem-posing and inquiry processes, and is geared towards taking meaningful action in the world (Beane, 1997). Drake calls this approach a “transdisciplinary” curriculum.

Curriculum integration can occur in a self-contained classroom. It lends itself to the interdisciplinary team teaching that is becoming more prevalent in middle schools, but which has, mostly, failed to take hold in the American high school. Integration can also be school-wide, the entire institution focused on a topic such as “Black History Month.” Curriculum integration can be of any duration; one day can reflect a highly integrated approach to learning, and we have known teachers who have carried out a theme for an entire school year. In one research project (Kesson, 1992), visionary leadership at the administrative level was seen as a crucial component of the reorganization of separate subject curriculum around integrated themes. Perhaps the most important aspect of curriculum integration is the way in which it organizes student learning around topics of vital relevance to the students themselves—instead of around the textbook. Disciplinary knowledge is utilized to the extent to which it illuminates real issues and solves real problems. Projects are often a vital component of integrated learning and authentic assessments (performances, exhibitions)

often replace and/or supplement letter grades and tests.

The Miami Middle School and High School are both traditional schools. There has not been a high interest, to date, in curriculum integration, interdisciplinary team teaching, block scheduling, community-based learning, or service learning, innovations that are reshaping curriculum and instruction at other educational sites. Twenty out of fifty teachers are Miami High School graduates. According to one teacher, while the staff at the schools are a “loving group of teachers,” many of them are complacent, and not interested in collaboration, or other initiatives to institute dramatic change processes. Only a handful of teachers were initially interested in the service learning project.

At these schools, the environmental service-learning projects undertaken by the Cherokee Volunteer Society are gradually effecting changes in the school-wide curriculum. These changes have been incremental, an “inch-by-inch fight,” as one teacher put it. It is a “grassroots movement in the school; bottom-up, not top-down.” The activism Rebecca Jim helped organize among the Cherokee Volunteer Society was accompanied by her vision of the wider reach of service learning projects. Ms. Jim explained that an extracurricular group such as the Cherokee Volunteers is only a beginning point for service learning. It is when community projects move into the school curriculum that service learning is really taking root. Ms. Jim explains:

If you just have a co-curricular group like this, you can't get nearly as much done as if you involve a classroom teacher. I mean, you have just so many more opportunities to learn and to teach. It's just different.

With this as her motivation, Ms. Jim approached teachers from all the disciplines to consider how service learning could be used in their classrooms. Science teachers have taught students to collect water samples and monitor water quality. They have recently received a \$20,000 EPA grant to purchase more equipment, including computers to foster communication among other local high schools located up the creek. Teachers arranged for their classes to go on the Cherokee Volunteer created “Toxic Tour.” And then pulling much of the community work and education together, Judith David and a second English teacher, Tom MacQueeney, worked with their senior classes to write a book about Tar Creek. It actually didn't start out as a book project; the teachers simply offered environmental topics as one choice for a project. The students responded enthusiastically. Ms. David later wrote about the book being self-published by the Cherokee Nation:

When Rebecca Jim, one of our high school counselors, confronted me last spring about using volunteerism and the Learn and Serve Program in my classroom, I was skeptical. At the time, I couldn't see how it would

fit into my curriculum. Then when one of my less motivated classes took a field trip to the EPA Superfund site in the Picher/Cardin area, I began to see the possibilities. Students became really concerned about the problems with lead contamination in the area due to past mining in Ottawa County. This was relevant because it affected them as well as future generations. . . . Who would have thought that so much could come out of one simple concept? I didn't until I tried it. Now I'm hooked. The students in the Cherokee Volunteer Society have learned a lot about working together collaboratively to achieve common goals. Group projects to raise community awareness about environmental issues serve as organizing centers for a curriculum that is increasingly integrated around the theme of cleaning up Tar Creek. Two major group projects, a Tar Creek Anthology entitled "The Legacy," and the annual "Tar Creek Fish Tournament and Toxic Tour" demonstrate the scope of the learning that can occur when the boundaries between the classroom and the community are dissolved.

The Legacy

After a field trip to the abandoned mines, students in Judith Davis' English class became interested in what they could do to raise public awareness about the environmental disaster in their community. (Ironically, the part of their field trip that was a walking tour had to be canceled because excessive rains prior to their trip had raised the possibility of massive cave-ins that could have endangered their lives.) Judith and Rebecca explained to the students that there was a vast amount of information available about local environmental problems, but that it wasn't available in a form that was useful to the general public. Students decided that they could provide a service to the community by writing and publishing papers on topics related to Tar Creek. Some of the topics they chose included fish contamination, lead poisoning, asbestos and tire pollution, mine water flooding, environmental racism, and jobs vs. the environment. According to Judith, these students, many of whom struggle with learning disabilities, exhibited a high degree of motivation and persistence when they got involved in the research. The collective result was *The Legacy*, an anthology that grew to include poetry, prose, autobiographical writing, and songs. One student, Tiffany Inman, wrote graphically about her reaction to touring the devastated areas of Tar Creek:

oozing along a barren walkway
grinding under my feet
plop plop plop
like moist chili powder
making its way through moldy grasslands
squish squish squish

a violated wasteland
with the stench of rotten eggs
mooring to a vast vagueness
as the rust ardent lava
vacates the premises

In this activity of creating the anthology, as in other projects that took place around the issues of Tar Creek, students and teachers were genuine collaborators. This notion of “all learning together” permeates the dynamics between teachers and students involved in these projects. In significant ways, they are equally humbled by the enormity of the issues they are taking on. Judith writes eloquently of these relationships in one of her contributions to the anthology:

The contour of the land
Guides the flow of the river
While the river carves the land
So, we change and are changed by others.
In this, we are one.

The Cherokee Nation is publishing *The Legacy* in book form. Teachers told us that students who were previously uninterested in the intellectual labor of research, writing, and revising worked tremendously hard, correcting their errors several times to make their work acceptable for publication. They took pride in their ability to get information from the library and from the Internet and share it with the broader community. According to Judith, “after studying the local issues, several became interested in volunteerism and possible careers.” This perception was confirmed in our own interviews with the students. Many of them imagined themselves continuing to be active in their communities around these issues, and some were considering careers related to health or environmental science.

Tar Creek Fish Tournament and Toxic Tour. The great irony of holding a Tar Creek Fish Tournament, of course, is that fish can no longer live in the creek. On Earth Day 1998, the Cherokee Volunteer Society planned and held a series of events designed to heighten public awareness about the environmental problems related to the Tar Creek Superfund Site. They arranged for a slate of speakers including representatives from the EPA, USA Fish and Wildlife, the BIA, the Quapaw, Modoc, and Wyandotte Tribes, the Indian Health Service, fly-fishing experts and Clanmothers and Clanfathers of the Quapaw. The students designed and conducted “Toxic Tours” of various distances for walkers, runners, bicyclers, and rollerbladers to view the “environmentally challenged sites in Ottawa County” (from their promotional brochure). They organized local musicians for a “Heavy Metal

Blues Fest” (pun intended) and for an evening of acoustic music (\$3 entrance fee, with free tickets for area residents and their children who participated in lead screenings). Through this weekend of events, students hoped to raise money for their various projects: the purchase of outdoor warning signs to be posted along the polluted creek and near the chat piles, the collection and analysis of teeth from children and adults from Miami and other contaminated areas, lead testing, and the recalibration and shipping of a bone lead machine from Harvard.

An important aspect of the service learning project is sharing the learning with others. Many of the Cherokee Volunteers go to the elementary school to give talks and answer questions about Tar Creek. They teach the children not to play on the chat piles, to wash their hands after coming in from playing out of doors, to hose their toys down occasionally, and not to play in the water of Tar Creek. Additionally, students have been actively speaking up in public forums: writing articles for local newspapers; being interviewed for local television and newspapers; attending and speaking at community meetings such as the city council; writing letters to the editor; organizing and speaking at community events; speaking at elementary schools; and attending national, state, and local conferences.

From these examples, it should be clear that the students are calling upon a variety of academic and practical skills related to their growth and development as active, engaged citizens. They are developing skills in research and in writing for a public audience about issues that really matter. They have learned a great deal about the structures of civic life—practical things like how to write letters to Congress members, contact government officials, organize mass education events, design cultural programs, and do public relations. These major, culminating projects serve as “exhibitions” of what these students have learned, what they have done, and who they have become in the process. They provide for the “authentic assessment” of academic achievement, and demonstrate the viability of an integrated approach to curriculum.

Breaking Traditional Bounds

Although it is easy for outsiders to see the ways that the Tar Creek clean-up campaign has captured the hearts and minds of numerous Miami High School students, the challenge to teachers and the community was often referred to, but much harder to investigate. It grew apparent to us that a few staff members, Ms. Jim particularly, were breaking some of the traditional bounds of school and community. Certainly, bringing local issues into curriculum making can often raise concerns as it is rare that local problems are not also controversial. So in the call for educators

to bring community issues into the classroom, the case of Tar Creek offers an important reminder that teaching is a political act. By choosing to design schoolwork around a topic of potentially great significance and controversy, these teachers run the risk of being criticized.

When we asked Ms. Jim, for example, what support she has received at the high school, she first mentions the work of the English teachers, the science teachers, and the football coach (who got his team involved in the “Fishing” Tournament). When pressed, she goes on to explain: “Well, I don’t know, they’re supportive and they’re not supportive. They can’t believe we’re doing this. Everybody believes it’s hopeless. I mean, it’s been twenty years it’s been sitting there and they think we’re just blowing in the wind.” A high school junior is more blunt: “The administration’s been kind of trying to keep this in a back corner.” His friend added, “They’re afraid that we’re going to do something to make this school look [pause] I don’t know.” A third fills in, “So we don’t get very much help from them.” A parent during a private interview brings home the point most directly of all:

We see how political it is here in this town; it’s very political. Ms. Jim actually has probably gone on a limb and put her job on the line in many ways from being this politically active. She catches a lot of heat for that in this town because this is a town that was made from mining you know, so she catches a lot from that. My daughter really admires that Ms. Jim has the guts to stand up and say, “I want to change this—I want a better environment for the kids down the road.”

The students who have come together in this important work represent an obvious cross-section of social groups at Miami High School. They are self-reported jocks, techies, religious, class clowns, and cheerleaders. What unifies them is their mutual commitment to building awareness in the community about the health issues of Tar Creek. As Cori Stotts, a sophomore, explained:

It’s not so much that we all like, are in this for the same reasons, you know, because, like, we’re in here for different reasons. But, in the end, what it all comes down to is we want to change what’s going on here, we want to make people aware, and we want to have some positive effects come from what we’re doing.

The students at this school are living in potentially the worst hazardous waste site in the United States today, but they continue to believe that their work can indeed make a difference. Cori continued:

If we can touch one person by doing the things that we do then, I mean, eventually it’s going to spread. One person can make a difference—it’s been shown in the past. There’s a quote, [from Martin Luther King, Jr.]. It’s, “History will have to record that the greatest tragedy of this period of

social transition was not the startling clamor of the bad people but the appalling silence of the good." If we can all, you know, we all sit back and we complain about the things that happen in our community, but not too many people get out and actually do something to change what's happening. And if one person can do that, if one person can start a group like this and get people interested then eventually people are going to see there's a problem and start to help.

Every student we spoke with in our week-long visit to Miami echoed this vision of positive change. This confidence that people working together for future change saturated the students' essays, poetry, and talk. These young people were also resoundingly articulate about group strength being derived from diverse individuals working together. One student noted quite explicitly: "We all contribute something different to the group. Everybody specializes in one area and when we pull it all together we make things happen." Students also spoke frequently of the "manners" they have learned in the Tar Creek Project: holding meetings, working out interpersonal conflicts, stating their opinions, and (most frequently noted of all) listening to each other. They also have a strong sense of group identity as they talk about their work. They speak often of finding collective solutions to the problems: "we" have to pass legislation, "we" have to educate people, "we" have to solve these problems. This collectivity is expressed at a micro-interactional level as well: we noted throughout our time with the students that the most talkative students worked continuously to prompt the quieter ones to answer particular questions. As Nathan Straub put it: "The one thing we did learn that we don't usually learn in school is how to work together—group efforts. We learned a lot of manners."

Risks and Responsibilities

Nathan offers educators an important challenge: how do we make schools places where students learn to become active and democratic citizens who know how to work together for the common good? Benjamin Barber suggests (1992) a number of ways that schools can use service learning to foster liberty, social responsibility, and individual agency. The Tar Creek Project illustrates the ways in which Barber's principles have been operationalized.

First of all, Barber notes the importance of connecting service learning and academic experiences as a way to both teach and practice citizenship. The Tar Creek investigations demonstrate not only the easy connection between service learning and academic subjects, but also the vital way in which a service learning project lends itself to curriculum integration. The work of Judith Davis in the English classroom and of the

science teachers who have chosen to build instruction around the Tar Creek issues illustrates the ready connections among subjects. In investigating Tar Creek, students have engaged with literature, chemistry, anatomy, zoology, environmental science, local history, geology, poetry, journalism, civics and government, business skills, and economics. With the comprehensive understanding of the issue that comes with such multidisciplinary knowledge, the students' activism and political engagement have been strongly enhanced.

Barber also notes that service learning can allow students to exercise both rights and responsibilities in the actual community where they are learning and serving. They have learned about their rights to access information, to try to influence political decisions, to live in a healthy environment. They have learned about the responsibility to share what they have learned with others, to take part thoughtfully in the political process and to protect their environment. Understanding these rights and responsibilities is a significant foundation for future civic participation.

Barber further discusses the way that service learning and civic education should be both communal and community based. The group projects clearly built team spirit and a sense of the collective which crossed social differences and class boundaries, orienting them to community welfare and the common good. They prioritized intergenerational community outreach as their most central activity. The boundaries between school and community were crossed as the community and its problems became their classroom, and community members began to participate more fully in the life of the schools.

Service learning is a nation-wide initiative to get students involved in the life of their communities. On the surface this is a relatively uncomplicated idea, yet in any civic situation different interests in the community are almost guaranteed to clash. As in the Ibsen play, economic forces and self-interest often conflict with the moral imperative and the greater good. The Tar Creek issue is an example of how complicated and potentially divisive a local issue can be in the life of a community. Teaching for moral decision-making and social responsibility, with complex community-based issues at the center, requires moral courage on the part of the teacher. Since the curriculum is centered around issues with no easy answers, the teacher is automatically positioned as a co-learner. In this issue-centered model, teachers move from being dispensers of knowledge and move toward being facilitators of ethical discussions and co-investigators of specific, contextualized understandings. This can be an incredibly threatening role for teachers as it destabilizes the authority of both classroom processes and curriculum content (Oyler, 1996).

A second way in which issue-centered service learning/teaching is complicated concerns the common desire for teachers to be objective and

politically neutral. Although we believe that this is not possible since all teaching is inherently political, people rightly worry about doctrinaire teaching in public schools. Teachers have a special responsibility to negotiate carefully among their own political beliefs and commitments and their public responsibility to foster a comprehensive and fair analysis of issues. We think the teachers involved with the Tar Creek project offer a fine example of these delicate negotiations. Clearly, risk-taking, moral leadership, and political commitment are essential components in the development of the Tar Creek service learning project. Yet if Rebecca Jim had not operated in a way that was inclusive of students' and teachers' interests and concerns, the project would not have grown. Even though the teacher-leaders were the catalysts, the focus was on students learning to ask questions and search for answers.

We left Tar Creek with an incredible sense of optimism regarding what can be accomplished when students, teachers, and community members work collaboratively on matters of genuine social concern. We were moved most of all by the students' capacity for hope, persistence, and efficacy in the face of enormous challenges in their lives. Their energy and commitment inspired many of the adults we spoke with: the environmental officers of the tribes, the parents and other community members, the staff at the EPA office. They have played a significant role in developing community-consciousness about an important issue. Like Doctor Tom Stockmann in the Ibsen play, these students have risked controversy and disapproval in their commitment to the moral high ground. The work of these students living in a Superfund site challenges us all to rethink the ways that schools can tackle the most difficult issues of our time.

Authors' Note

This study was supported by an Untenured Faculty Research Grant from the Dean's Office, Teachers College, Columbia University, Summer, 1998. This paper is fully co-authored; names are listed alphabetically. The authors thank Ruth Vinz for her support of the research project, Earl Hatley for bringing the work of the Cherokee Volunteer Society to our attention, and Michelle Mondo for her assistance with transcription. For further information regarding the Tar Creek Project, readers can contact the Cherokee Volunteer Society at Miami High School in Miami, Oklahoma.

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Memberships Available in the NCTE Committee on Language and Learning Across the Curriculum

A limited number of memberships in the newly reconstituted Committee on Language and Learning Across the Curriculum will be available to interested members of the Council. Major functions of the committee will be to identify subject matter associations which might be responsive to articles and convention programs on language across the curriculum; to ask knowledgeable NCTE members to prepare articles and convention program proposals for submission to those associations; and to explore other approaches to promoting language across the curriculum. If you would like to be considered for membership in this group, send a one-page letter by January 31, 1999, explaining your specific interest in the committee, relevant background, and your present professional work to: Administrative Assistant to the Associate Executive Director, NCTE, 1111 W. Kenyon Road, Urbana, IL 61801-1096.