This qualitative study examined the effects of a high-stakes, standardized test on teachers' instructional planning at a rural school. The research addressed this question: How do mandated curricular standards affect teachers' instructional planning and content selection? Ethnographic interviews (Creswell, 1998) examined four secondary teachers' perceptions of the effects of high-stakes standardized tests on their work. Case study methodology (Yin, 1994) guided the analysis of the data. Each participant had several years' experience teaching at Mollusk Island School, and each teacher had previously included place-based lessons (e.g., environmental studies, cultural history) in his/her repertoire. Ultimately, the study explored how a community maintenance function of small rural schools might be affected by state legislation for standardized accountability.

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The educational standards movement is a global one. An accountability effort that gained prominence in the US during the 1990s echoed a similar trend occurring in British (Goodson, 1990; Hargreaves & Evans, 1997; Silverman, 1996) and Australian (Macpherson, 1990) classrooms, as well as in other school systems across the world. Research in the United States by Smylie (1996) and by Porter, Archbald, and Tyree (1990) revealed a trend among state educational policies toward increased external regulation at the local level to enact school reform. Smylie interpreted these policies as indicators of a prevailing, hegemonic view that local school systems lacked direction and appropriate forms of accountability. Cantlon, Rushcamp, and Freeman (1990) found that state-level policies have a ripple effect in local school management. With additional levels of accountability present in "No Child Left Behind," local educators can expect continued external governance.

For rural schools, the challenges are great. The very existence of some schools is threatened under current accountability efforts, even eclipsing a school's efforts to increase student success on standardized tests (Williams, 2003). Howley (2003) noted that tight budgets facing state legislatures may require a school district to close its smallest schools. In order to overcome issues of survival and success, Williams contended that rural schools should remake themselves into institutions that serve and monitor both school and community (p. 70). Schwab called this nexus of school and community milieu, the "context within which learning takes place". By Schwab's definition, milieu was a concept connected to all curriculum decisions, and encompassed all relationships and values held by educators and other members of the community (in McCutcheon, 1995, p. 13).

One outcome of states' standardized testing is teachers' surrender of their control of curriculum content. Madaus (1988) identified significant effects of standardized testing on a school's curriculum, including the transfer of curricular control from classrooms to the state agency that produces the test (p. 97-98). Madaus also found that the taught curriculum eventually matches the content of the exam in each setting that gives a high-stakes test (p. 93). To reconsider Williams' (2003) challenge, then, in a standards-based climate how might small rural schools serve students and community when even the most quotidian of classroom elements, the curriculum taught to students, may not reflect the milieu in which it is taught? George Spindler raised a similar question two decades ago. He wondered, "[T]o what degree [does] a community, an ethnic or religious group, or a social class [have] the right to determine how its offspring should be educated?" (in Peshkin, 1982, p. 50).

Educational anthropologists (Spindler, 1982, 1997; Pollock, 1997; Wilcox, 1982) have reviewed the content both of what is taught and what is not discussed in classrooms. Through an explicit (taught) curriculum, a teacher transmits content to students that the teacher believes is valuable. Similarly, the implicit (hidden) curriculum, the topics that are not planned for instruction to students, also communicates notions of value. This hidden curriculum exists in such pedestrian details of school as bell schedules, seating charts, and reading lists.

Through their research findings, anthropologists echo a consistent point, that teachers are not "neutral dispensers of information," but instead are "active cultural beings, suffused with orientations of the culture" (Wilcox, 1982, p. 463-464). Two studies about schools and their communities emphasized this role of teachers. Peshkin (1978) wrote about the impact that the closing of a high school had on the residents of Mansfield. His findings indicated that schools have a role in maintaining communities, and that communities may suffer as schools are closed. Peshkin suggested that a "factor of community good" be considered along with issues of financial and educational good whenever officials debate the closing of a rural school (p. 208).
King (1982) investigated the lack of academic success among Native Canadian students at a church-run state school in the Yukon Territory. The curriculum did not reflect Native attitudes, heritage, or perceived needs. Instead, the curriculum and methods of the school seemed "Eurocentric" (p. 50). As a response to teachers' overt rejection of their Native cultural identities, King found that students created artificial classroom personas to avoid participating in instruction. Student academic progress was ultimately inhibited as the hidden curriculum hobbled the educational aims of the explicit curriculum. King recommended that local communities be involved in curricular decisions at the residential school (p. 91).

Educational researchers have noted the value of community involvement in the educational mission of schools. Peshkin (1978) wrote, "Given a school's contribution to personal identity and community maintenance [...] it is appropriate to stress the importance of schools to their support constituencies, particularly those located in settings with already fragile communities" (p. 195). Of particular interest to rural schools, however, are instructional effects associated with standardized testing: these effects include a reduction in curricular variety and a decrease in teachers' opportunities to engage students in topics of local interest.

This study sought to discern decisions that teachers make when planning instruction within a standardized curriculum and to consider what connections these decisions might have with students' milieu. How do the processes that teachers use to select content relate to standardized expectations? What are the teachers' perceptions about rural schools and the identities of students these schools produce? If educational trends are toward centralization, what considerations might smaller, rural schools make for their success and survival? The findings of this research raise issues of community identity and the viability of small schools in a climate of accountability.

The Setting

The specific phenomenon that this study investigated is a standardized test, the Accountability Assessment (AA) Test, given throughout the state of Atlantic2 during the Spring of 1999. The AA Standards were introduced to Atlantic's educators during the 1994-95 school year, and the tests themselves were unveiled during 1997. According to state legislation, these high-stakes tests are given statewide in 3rd, 5th, and 8th grades as well as at the conclusion of core high school courses (e.g., Biology, Chemistry, US History). The state's target is for 70% of test-takers to pass the tests by the 2006-07 academic year. Test-takers who fail to pass a designated number of tests will not graduate beginning in Spring 2004.

During the state's initial administration of the AA Tests in Spring 1998, only a small number of the schools statewide achieved a "passing" score on the tests. Such a poor initial performance fueled rhetoric on both sides of the debate. Critics complained that creativity in both teaching and learning was trickling away as teachers taught to the test. Advocates of the assessment said that designating a minimum standard for student performance was required to determine the level of progress schools were making in instruction.

In obtaining a research setting to investigate teacher decision-making in a standardized educational climate, one guiding question for the researcher became who among teachers would be most concerned about losing the ability to teach content replaced by the mandated curriculum? Teachers who select topics from outside of textbooks and state standards might have the greatest uncertainty about the AA Tests. Because anthropological research has revealed the importance of small schools to community identity, the researcher established the research setting at an isolated small school on Mollusk Island. Another factor that made Mollusk Island irresistible as a research setting was the fact that teachers on the island had previously taught students about their milieu. Local topics that teachers addressed included studies of local history, genealogy and environmental health. Because these teachers previously had included an instructional focus on local topics, the researcher theorized these teachers would face particular challenges in implementing a standardized curriculum.

Additional interest about the significance of local topics in school arose because it was apparent to an observer that the traditional way of life on the island was diminishing. A combination of factors resulted in an increasingly limited yield of commercially viable species available in Ullswater Sound. Pollution was regarded as a significant factor, as was overfishing. State legislators curtailed the number of fishing licenses issued in an attempt to improve the health and productivity of the sound. This ban threatened Mollusk Island's legacy of sons following fathers into the fishing industry.

Mollusk Island is located in the middle of Ullswater Sound, a 45-minute boat ride from the mainland. The thin, three-mile long island off the US Atlantic coast is home to approximately 700 residents. In the past, the island's population had been larger, but current inhabitants squeezed onto just over 100 habitable acres. The population was homogenous, almost entirely of European descent.

Among locals a distinct identity was evident and was something that islanders sought to protect. For years, linguists from across the world had traveled to study the unique dialect spoken by island residents. More recently, town fathers had turned away a Hollywood studio (and the dollars it would bring) intent on filming on the island. Film producers were told the script did not reflect the islanders' morality, so the project would be unwelcome there.

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1To assure consensual validity of participants, the researchers assigned pseudonyms to each one and to all other site-specific identifiers.
Mollusk Island School (MIS) housed 113 students (K-12) and 13 teachers in a single building. The school district (headquartered on the mainland) had recently constructed a new school building on the island. Its exterior was nearly identical to the school it replaced, and reflected the white clapboard architecture common on the island.

In recent years, a typical MIS graduating class contained fewer than 10 members. Almost all teachers, aides, the librarian, and the principal had attended MIS as students themselves. The school day had not changed significantly over time. Students either biked or walked to school. Some of the upperclassmen, however, did drive golf carts to school, parking them quietly alongside teachers' cars out front.

Four MIS secondary teachers – two males and two females – agreed to participate in the study. The two males had been MIS students. The two females had had a long association with the island and came to teach there after marrying island natives. Among these four participants, their tenure at MIS averaged 17.5 years (the longest span at MIS: 34 years). All participants had taught students about the island’s milieu prior to the arrival of the AA Tests. Because standardized practice in education itself is not new, the participants’ ability to draw upon occurrences prior to the AA Testing was of great benefit. This perspective illuminated both what teachers had anticipated and what they had found surprising about the Accountability Assessments.

Clark was a wood shop teacher who for years taught his students the construction of folk crafts such as fishing nets and other implements used in the island’s fishing industry. Students built these implements in the wood shop and sold them to local fishermen. More recently Clark had taught himself about computers and had set up the school’s computer lab. David was the high school social studies teacher. His instruction included local history lessons and a survey of the island’s cemeteries. Clare (married to David) taught English to all students in Grades 8-12. She taught local topics including genealogy and regional dialect. Dawn had left her nursing job on the mainland and returned with her husband to Mollusk Island after he retired. She taught all the high school science courses and discussed local environmental topics with her classes.

Methods

George Spindler (1982) wrote that without the assistance of an outside observer, natives are unable to “realize the full implications of their own cultural knowledge and social behavior” (p. 490). Spindler’s fieldwork revealed to him that despite overlaps and filling in the gaps in a group’s testimony, there are always elements of the participants’ implicit behaviors of which they are unaware.

Through the ethnographic interviews in this study, the researcher sought to draw out participants’ understandings of their practice in instructional planning. The researcher collected data through a series of three ethnographic interviews (Creswell, 1998) with each participant. This research format emphasizes specific requirements, including that the researcher seek a detailed view from informants and that data is gathered in a natural setting. The researcher became a participant in the day-to-day life of MIS, living on the island during the study and attending school each day. The researcher ate lunch with the faculty and gained access to their community by means of observation, spending time at the school during classes and after students had left the building.

Interview guides dictated the themes for each interview. After the interviews were completed and transcribed, participants inspected the transcripts. The researcher analyzed each participant’s series of interviews according to the framework for case study analysis (Yin, 1994) and wrote a case about each participant. Finally, the researcher analyzed the four cases together and identified themes that emerged from the four testimonies.

As a means to check the validity of the cross-case analysis (Yin, 1994), the researcher compared patterns that emerged from his readings to four propositions and rival propositions he had composed before data analysis. The propositions were based on a reading of scholarly literature and addressed the following areas: effects of curricular mandates on teachers; teachers’ authority to make curricular choices; local lessons vis-à-vis mandated content; and teachers’ reliance on conventional (e.g., textbooks, standardized tests) curricular resources.

Cross-case analysis seeks “to build a general explanation that fits each of the individual cases, even though the cases will vary in their details” (Yin, 1994, p. 112). Pattern matching is a technique for analyzing data during cross-case analysis. Yin compared this process to performing multiple experiments. The researcher compares an empirically based pattern with a predicted one. If the patterns coincide, the results strengthen the study’s internal validity. The procedure involves no precise patterns, and in this study, findings from each of the cases were compared against the propositions.

Findings

Effects of mandated assessments

Data analysis yielded findings about the effects of mandated assessments on teachers’ instructional planning. Participants displayed a mix of promising and unsatisfactory educational practices related to their instructional planning.

The state standardized testing imposed a limit on the amount of time teachers had for instruction, as well as limits on the instructional resources and the types of assessments teachers employed. Participants expressed theircognizance of a growing expectation for them to teach more rapidly and to cover more content during their instruction. The requirements for preparing students for a mandated
assessment called for a quick mention of all content, not deep coverage of any academic topic.

To guide instructional planning, participants noted their increased reliance on conventional curriculum sources, particularly lists of instructional standards and standardized tests themselves. Some participants expressed an appreciation for the guidance the AA Test offered in helping their selection of appropriate content for instruction — if the material appeared on the test then it was important enough to teach. The list of standards helped these teachers “weed out” topics that would not be tested and permitted greater focus on what students would be expected to know on tests.

Participants’ routine classroom tests and quizzes increasingly featured only multiple-choice questions while eliminating essay questions and other modes of discourse. David noted that while he had previously included essay questions on his tests, currently he was shifting all his test questions (as well as review questions to prepare students for tests) to a multiple-choice format that mirrored the format of questions on the state’s test. In fact, MIS administrators encouraged teachers to use multiple-choice questions to familiarize students with the test’s format.

As predicted by the literature, participants’ priority in planning instruction was meeting the perceived individual needs of students. This priority ranked ahead of meeting state standards or teaching local topics. However, the diminutive size of the MIS faculty held no advantage for helping teachers to plan instruction across grade levels. While participants expressed an awareness of a need to collaborate with other faculty members at the school, these teachers appeared to collaborate across grade levels less frequently than they had before the arrival of the AA Tests. Some participants noted that they would probably increase their collaboration across grade levels if the school scored poorly on the AA Tests.

While the literature (Ayers, 1992; Thornton, 1992) indicates that reflection is a professional practice that is rare among classroom teachers, participants displayed evidence that they were more reflective about their practice. These teachers increased their reflection as a result of standardized testing. Teachers inspected which parts of their instructional practice were effective and what changes they needed to make in order to improve test scores.

Local topics in the taught curriculum

This study revealed findings about teachers’ inclusion of local topics within a standardized curriculum. Participants expressed a robust involvement in content selection.

Teachers indicated that they must be purposeful in their content selection because the AA Tests prescribed a great number of topics. Participants also expressed an awareness of some risk they entailed in straying from the tested curriculum to address local topics. Most participants indicated they would abandon local topics if students achieved low scores on the AA Tests. However, Dawn (science teacher) indicated she would continue to teach local environmental topics because the health of the Ullswater Sound was too vital to the island’s well-being for her to ignore that topic.

Dawn had discerned that the traditional practices of many fishermen were not scientifically sound. For example, she found that fishermen eschewed the grasses that grew in shallow sections of the sound, when in fact these grasses were necessary habitats for the nascent stages of the mature species fishermen later sought. Because her students would not learn “good science” from the traditional practice, Dawn saw her role as essential in developing accurate knowledge and sustainable practices within the community.

The presence of local topics in the taught curriculum was also affected by factors other than the AA Tests. Clark’s curriculum focus switched from wood shop to computer applications. His exclusion of local topics was clearly linked to the construction of a new school building. The new building contained no wood shop space. Certainly, this curricular change was not the direct result of standardized curriculum, but was dictated by the economic demands embodied in the vocational curriculum. With the lost shop space disappeared opportunities to construct nets and crab traps. Clark’s current students took part in a curriculum that included robotics and small engine repair.

Despite the local topics the participants had chosen to address with students, these teachers said that transmitting local heritage was not theirs or the school’s exclusive responsibility. They suggested local groups who could be better equipped to provide students opportunities to study local topics. These groups included the island’s museum, the county historical association, and the Ullswater Sound Society, an environmental group that had educational outreach as a primary mission.

Throughout the study, participants expressed a common hope that students would attain community mores, an “identity,” through their experience at school. The community mores discussed by participants included hard work, honesty, and practicing religious faith.

Contextual factors related to size and location

While Howley (2003) proposed that tight budgets faced by state legislatures threaten a community’s ability to maintain a small rural school, other factors can affect a school’s viability. A loss of local control of the taught curriculum could negatively affect small schools and communities. Standardized testing creates a set of requirements that may not include the needs of the local school, and the participants’ experience suggests considerations for managing local accountability efforts.

The availability of effective textbooks and other curricular materials (equivalent to materials used by other schools in the district) may not be a consistent priority outside the local classroom, and ultimately may not align the school with state requirements. Dawn and Clare both told of
instances in which the district provided the wrong textbooks or provided no materials at all for required courses. Similarly, the district could exempt a small school from meeting state requirements. Clark described being excused by the district’s central office from certain vocational requirements.

At Mollusk Island School, staff members expended considerable effort to maintain a continued involvement in district-level decision making. MIS staff members often required half a day to fly to the mainland to participate in district meetings. However, staying engaged in district-level decisions assured that information was delivered accurately and efficiently to the island. Also, this involvement assured that meeting the needs of the small, remote school could continue to be a part of the district’s vision.

Concluding Thoughts

Because small rural schools serve such an exclusive clientele, these institutions should have the flexibility to tailor their instruction to meet specific student needs. School leaders should train faculty members to interpret test data and design and implement instruction that meets the needs of individual students. This teacher training could make a school less dependent on outside interpretation and could result in immediate in-house responses to students’ academic needs reflected in test scores.

Additionally, school leaders must harness opportunities for teachers across grade levels to communicate and strategize together. An easy assumption is that small school would naturally have regular, formal communication amongst grade level teachers. At MIS this was not the case despite the small size. Teachers were aware of the need to communicate; but simply had not done so formally or regularly.

Small rural schools are a foundational part of the communities they serve. In a high-stakes educational climate, however, teachers are hard-pressed to present a curriculum that meets the needs of their students and the public. A rural school’s longevity under standardized accountability may benefit from stronger academic ties to the community. However, the demands of the academic standards on teachers’ instructional practice may prohibit an instructional link to the community. Coordinated steps by classroom teachers, school administrators, and community partners are required to meet state requirements while outfitting students with an identity rooted in the community. Additional local measures may be required in order for small schools to outlast any external supervision that may not honor the interests of the school or the community.

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