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**Assessment of Drug Abuse Prevention Curricula
Developed at the Local Level**

Kris Bosworth

Baywood Publishing Company, Inc.

26 Austin Ave., Amityville, NY 11701

call (516) 691-1270 fax (516) 691-1770 **orderline** (800) 638-7819

e-mail: baywood@baywood.com **web site:** <http://baywood.com>

ASSESSMENT OF DRUG ABUSE PREVENTION CURRICULA DEVELOPED AT THE LOCAL LEVEL*

KRIS BOSWORTH, PH.D.
University of Arizona, Tucson

ABSTRACT

Public schools are a critical site for drug abuse prevention and education. Although in recent years prevention curriculum developers have been able to identify successful strategies, it is not clear how well these findings have been transferred to local schools. This article reports on a study of schools that have developed their own drug abuse prevention curriculum. The process that these schools used is compared to a model of curriculum development. In general, the process that local schools use is characterized by high levels of involvement by a variety of personnel, low levels of training, little use of resources outside the school corporation, poor training of teachers who will be implementing the curriculum, and little evaluation. Availability of external funds for development from federal or state sources were powerful motivators for curriculum development. Recommendations for changes in professional development and curriculum materials availability are made.

In this society's fight against youth involvement with tobacco, alcohol, and other drugs, American schools, in spite of their inconsistent performance record, have continued to play a leading role in prevention efforts. Schools have been identified as a primary site of drug education and prevention for young people for various reasons: schools offer unique access to young people on a large scale, thus making prevention education economically feasible; educators have the training and background that should allow them to be the best deliverers of

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prevention curricula; and because of the stability of the school experience, longitudinal interventions are possible.

In meeting the need for drug education and prevention, schools have essentially two choices. A school can purchase a commercially developed curriculum, or develop its own. In a survey of public schools in Wisconsin, Fredisdorf found that 67 percent of the schools either developed their own curriculum or used a combination of purchased and locally developed curricula [1]. More recently in another Midwestern state, Bosworth and Cueto found that over 35 percent of public schools surveyed developed their own curriculum [2].

For those schools that purchased curricula there is no guarantee that the materials will lead to a successful drug prevention effort [3]. Although recent evaluation studies (for example, Hansen [4], Dryfoos [5], and Dusenbury and Falco [6]) have identified prevention strategies and curricula that have been shown to delay onset and reduce risk-taking behavior, not all commercially available curricula have had a rigorous evaluation test [7]. Thus, although some curricula currently available have demonstrated effectiveness in repeated evaluation studies, many other commercial curricula do not have the same guarantee as a result of rigorous evaluation [8].

Much less is known about the curricula developed by local school districts and schools. This article reports a study of public schools with grades K-12 in one Midwestern state that have developed their own drug abuse prevention curricula. This article will compare the development processes from in-depth interviews with the schools' alcohol and other drugs coordinator to a curriculum development model for school-based prevention reported by Sussman [9].

Sussman identifies a four-step process of curriculum development. In the first step a *theoretical model* which serves as the conceptual guide is adopted, and assessment studies are used to increase theoretically relevant knowledge regarding variables that either facilitate or deter a specific risk behavior. In the second step the developer *collects curriculum activities* and methods from related areas that have been used in other projects or have been supported by research. This step also includes the development of new activities which are hypothesized to counter certain antecedent variables. The third step involves *activities compared in a series of studies* to select those prevention activities with maximum theoretical impact on the proposed mechanisms of change.

In the final step, these activities are combined and lessons developed to *create a whole curriculum* that is workable and usable in a classroom setting. Pilot and feasibility studies are important components of this step. Sussman purports that following these steps will provide an "empirically" grounded primary prevention curriculum. Failure to use an empirically grounded curriculum development process leaves open the question of potential effectiveness of the resulting curriculum. Using the intuitive approach may "confound" the experience and biases of the writers with those of empirical research, thus leaving it to the curriculum

writer alone to judge the sufficiency of measures in a particular curriculum activity.

To accurately gain an assessment of the quality of locally developed curricula, each curriculum would need to be tested in its own unique evaluation study. Given its impracticality, measuring a locally developed curriculum development process against the empirically grounded curriculum development process described by Sussman would enable researchers and policy makers to assess the quality and potential effectiveness of drug abuse prevention curricula that are developed in local school districts.

METHODS

Data in this report were gathered from telephone interviews with the identified drug-free schools (DFS) coordinator or designate in the school corporation of schools that had previously been identified as having developed its own prevention curriculum. Interviews were completed in seventy-six schools (26 elementary, 20 middle, and 30 high schools) of the 120 selected for the study (63%).

Sample

The sample was based on a survey completed the previous year in which schools were asked to identify the current drug abuse prevention curriculum [2]. Since the focus of this study was the process by which schools developed their own curriculum, only public schools that reported developing their own curriculum were included in this study pool. Forty schools were randomly selected in each of three grade configuration categories: elementary, middle,¹ and high schools. Table 1 shows that the schools in the study ranged in size from under 200 to over 1000. In general, elementary schools were smaller than secondary schools.

The sample for this study was reduced because of two factors. Table 2 shows the results of study contacts with the 120 schools in our sample pool. Because they had multiple job responsibilities, often the DFS coordinators were not readily available for interviews. If we were unable to contact an identified coordinator after ten tries, we eliminated that particular school from our sample (20%).

Twenty schools (over half of these at the middle school level) had purchased a commercially available curriculum within the year since our initial survey and therefore were eliminated from the sample.

¹ Middle schools were defined as any school having a seventh grade.

Table 1. Size of Schools in Sample

	Elementary	Middle	High School	Total
<200	3 (11%)	1 (5%)	0	4 (5%)
201-300	3 (11%)	3 (15%)	2 (6%)	8 (10%)
301-400	2 (7%)	3 (15%)	3 (10%)	8 (10%)
401-500	14 (53%)	1 (5%)	4 (13%)	19 (25%)
501-600	2 (7%)	2 (10%)	4 (13%)	8 (10%)
601-700	1 (3%)	4 (20%)	5 (16%)	10 (13%)
701-800	1 (3%)	0	1 (3%)	2 (3%)
801-900	1 (3%)	3 (15%)	2 (6%)	6 (7%)
901-1000	0	0	3 (10%)	3 (4%)
>1000	0	3 (15%)	8 (26%)	11 (14%)
	Mean = 422	Mean = 672	Mean = 830	

Table 2. Type of Response

	Elementary	Middle School	High School	Total
Interview completed	26 (65%)	20 (50%)	30 (75%)	76 (63%)
Purchased curriculum	6 (15%)	11 (28%)	3 (8%)	20 (17%)
Unavailable (10+ attempts)	8 (20%)	9 (22%)	7 (18%)	24 (20%)
Total	40	40	40	120

Subjects

The respondents were identified from a list of DFS coordinators supplied by the State Department of Education. In three quarters of the schools the DFS coordinator held another position in the school district. Twenty-two percent were also curriculum directors or supervisors, 11 percent were superintendents or assistant superintendents, 10 percent were principals, 8 percent were teachers, 5 percent were counselors or social workers, and 4 percent were nurses.

The initial interview question was designed to ascertain if the respondent was the best qualified person to answer questions about a particular school within that corporation. In six cases the DFS coordinator identified another person who had more knowledge of the specific school. Thus, in these six schools more than one person was interviewed to get a complete picture of the study school.

Interview Protocol

The interview protocol included both school demographic questions and open-ended questions about the development process and was based on previous work in assessing the quality of drug abuse curricula [10]. After asking the respondent to describe the process by which the curriculum was developed, probing questions focused on the key actors and their qualifications, the components of the curricula, sources of funding, training, and evaluation. The protocol was reviewed and modified by a DFS coordinator, a state drug abuse prevention coordinator, and a curriculum developer. It was pilot tested in two schools in each grade level (elementary, middle, high) prior to administration.

The average interview lasted thirty-one minutes (range 12 minutes to 73 minutes). Schools with more complex programs, having more activities to report, generally had longer interviews.

Analysis

The responses to open-ended questions were analyzed for the factors related to the components of the Sussman model through a series of sorting activities. Other components consistently cited were also highlighted. To assess the quality of the development process and identify the components of the Sussman model, two drug abuse prevention experts independently reviewed each interview.

Each case was also evaluated for rigor of the process. The inter-rater reliability was .87. In cases where there were differences, the reviewers discussed perspectives with the author to reach consensus.

FINDINGS

Over half the schools (55%) reported that their current locally developed curriculum was a new venture for them. Of the schools that reported revising their curriculum (45%), most said the original curriculum was developed in the late 1980s. One school reported that its own drug abuse prevention curriculum had first been developed in 1975. At the time of the interview 88 percent of the schools felt the development was complete, and there were no revisions planned for the curricula.

Table 3 indicates the factors respondents identified as influencing the decision-making process. Over half of them said that a locally developed curriculum "better reflected the community needs and values" than did purchased curricula. This was particularly strong at the elementary level. Cost and ease of integration with other curricula were important to high schools but much less important to elementary and middle schools. Middle schools felt external pressure more than the elementary and high schools; they most often reported developing curriculum as a result of the state mandate. Although there has been some concern about parent and community objections to certain specific purchased curricula, parent

Table 3. Factors Influencing Decision-Making Process^a

	Elem.	Middle	High	Total
Reflected community needs and values better than purchased	18 (70%)	9 (45%)	14 (47%)	41 (54%)
Easier to integrate with other curricular components	9 (35%)	5 (25%)	12 (40%)	26 (34%)
Less expensive than purchased	7 (26%)	4 (20%)	11 (37%)	22 (29%)
Felt we could do a better job	6 (22%)	4 (20%)	7 (23%)	17 (22%)
State mandate	4 (15%)	7 (35%)	5 (17%)	16 (21%)
Money was available	6 (22%)	4 (20%)	5 (17%)	15 (20%)
Outside influence	2 (8%)	—	2 (7%)	4 (5%)

^aMore than one answer may be marked for each school.

influences were reported in only one school at the elementary level. Here is how the DFS coordinator in this school described the situation:

We had a lot of community pressure not to use self-esteem programs. QUEST had not been received well by the community. Most other commercially available curriculum [sic] had self-esteem components, so we felt we didn't have much choice in the commercially developed curriculum [sic]. We got together a committee with representatives at each of the building levels. The main goal was to have carry-over and articulation between the buildings. In the process we did an assessment of what already was being done and looked for gaps. We went through catalogs of materials to find materials and activities to fill the gaps we identified. It was mostly gut level.

Development

Table 4 indicates the goals and objectives for the locally developed curriculum. Generally the responses fell into four major areas: information, skills, outcome (e.g., "Drug-Free"), and curriculum issues. For each level nearly half of the schools reported goals relevant to their interest in providing information and awareness. In contrast to elementary schools, a major concern of middle schools and high schools was behavioral outcome, e.g., that students would not use drugs, or that the school would be drug free. Forty-four percent of all schools included building skills as a curricular goal. Decision-making skills were most often

Table 4. Curriculum Goals and Objectives^a

	Elem.	Middle	High	Total
INFORMATION/AWARENESS	11 (41%)	9 (45%)	13 (43%)	33 (43%)
OUTCOME (Prevention of use, a drug-free school, behavior change)	8 (30%)	14 (70%)	23 (76%)	45 (59%)
SKILLS (Self-esteem, decision making, refusal)	17 (67%)	6 (30%)	21 (71%)	44 (58%)
CURRICULUM (Continuity, age appropriate)	8 (33%)	8 (40%)	6 (20%)	22 (29%)
OTHER	6 (22%)	3 (15%)	1 (3%)	10 (13%)
NO REPORTED GOALS	—	3 (15%)	3 (10%)	6 (8%)

^aMore than one answer may be marked for each school.

mentioned by elementary schools, whereas the secondary schools focused on self-esteem and refusal skills. In the development, some schools reported goals to make the curriculum easy to integrate into other curricula, as well as to have age appropriate information for their students.

Since half of the respondents reported that their curriculum was developed in either 1991 or 1992, one could infer that development was a direct response to a federal mandate requiring drug information at all grades, as well as to the availability of state grant funds during those years.

As indicated in Table 5 nearly half of the schools used Drug-Free School and Community monies to develop their curriculum. This was far more prevalent in the elementary schools, where 70 percent reported using this type of funding. State Department of Education grants and local corporation funds were used in about one-third of the schools. Clearly, availability of money from outside the school is very influential in the development process. State funds were used in a variety of ways, with training receiving a high priority. Other schools used monies to hire special staff or pay for teachers to develop a curriculum.

As can be seen in Figure 1, the curriculum development process was usually a team effort. Only 10 percent of the schools had only one person developing the curriculum. In 20 percent of the schools, two people were responsible for development, while 20 percent had development teams of six or more people.

Table 6 identifies the job titles of the development team members. Health teachers in the middle and high school played a predominant role, as did

Table 5. Funding for Curriculum Development^a

	Elem.	Middle	High	Total
Drug-Free School/Community funds	18 (70%)	9 (45%)	9 (30%)	36 (48%)
State grants	9 (33%)	7 (35%)	9 (30%)	25 (33%)
School corporation	11 (44%)	7 (35%)	5 (17%)	23 (30%)
Corporate sponsors	3 (11%)	—	—	3 (4%)
Community organization donations	2 (7%)	—	—	2 (3%)
Other	2 (7%)	2 (10%)	—	4 (5%)

^aMore than one answer may be marked for each school.

SIZE OF DEVELOPMENT TEAM

BY SCHOOL LEVEL

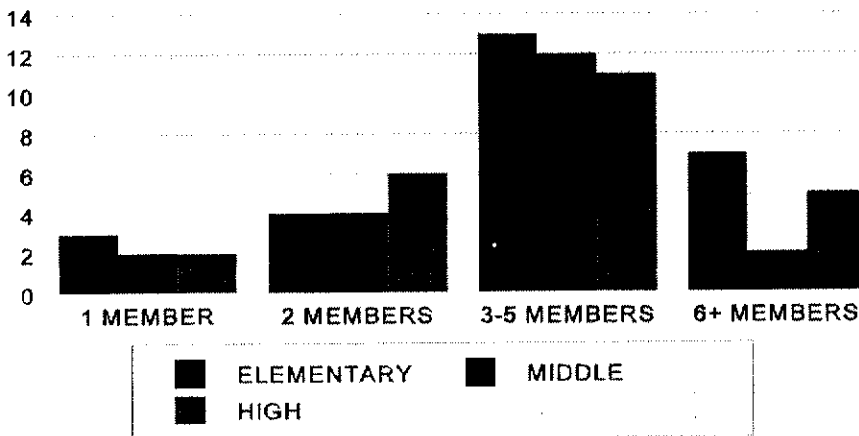


Figure 1.

Table 6. Key Actors in Curriculum Development^a

	Elem.	Middle	High	Total
Teachers	19 (74%)	12 (60%)	13 (43%)	44 (58%)
Health teachers	3 (11%)	14 (70%)	20 (67%)	37 (49%)
Principal	12 (48%)	8 (40%)	11 (37%)	31 (41%)
Parents	14 (52%)	6 (30%)	3 (10%)	23 (30%)
School Nurse	9 (33%)	5 (25%)	6 (20%)	20 (26%)
Curriculum Director	6 (22%)	9 (45%)	5 (17%)	20 (26%)
Counselor/Social Worker	11 (44%)	1 (5%)	7 (23%)	19 (25%)
Superintendent	9 (33%)	2 (10%)	5 (17%)	16 (21%)
Community members	10 (37%)	3 (15%)	3 (10%)	16 (21%)
DFS Coordinator	7 (26%)	3 (15%)	4 (13%)	14 (18%)
Science teachers	2 (7%)	2 (10%)	7 (23%)	11 (14%)
At-Risk Coordinator	6 (22%)	2 (10%)	2 (7%)	10 (13%)
Students	5 (19%)	2 (10%)	2 (7%)	9 (12%)
Home economic teachers	1 (4%)	1 (5%)	4 (13%)	6 (8%)
Other	2 (7%)	3 (15%)	3 (10%)	8 (10%)

^aMore than one answer may be marked for each school.

classroom teachers in elementary schools. Some of the school corporation personnel that might have been expected to be involved (e.g., curriculum directors or DFS coordinators) seemed to play minor roles. For example, the DFS coordinator was involved in the development process in only 18 percent of the schools. DFS coordinators were more involved in elementary schools than in middle or high schools. Curriculum directors were most often involved in middle schools and were rarely involved in elementary and high schools. Yet, curriculum directors were often more involved than the DFS coordinator. Teachers with training in several disciplines (health, science, home economics) played active roles on development teams.

Principles were heavily involved at all levels, particularly in the elementary schools. Also, at the elementary school level superintendents played a more important role than in the middle or high school level. An unexpected finding involves the high visibility of both parents' and community member in curriculum development at the elementary school level.

Table 7 shows the resources that were reviewed prior to development. Forty-two percent of the schools (48% of the elementary schools) looked at commercially available curricula, 38 percent referred to their existing curriculum, and 16 percent used state guidelines. The state guidelines were most heavily used in the middle schools (40%). Interestingly, 27 percent of the school districts (mostly elementary and high schools) did not mention reviewing any resources prior to the development.

Table 7. Resources Reviewed Prior to Development^a

	Elem.	Middle	High	Total
Purchased curriculum	12 (48%)	9 (45%)	11 (37%)	32 (42%)
School's existing AOD curriculum	9 (33%)	7 (35%)	13 (43%)	29 (38%)
State guidelines	1 (4%)	8 (40%)	3 (10%)	12 (16%)
Surveys	1 (4%)	1 (5%)	1 (3%)	3 (4%)
Other resources	4 (15%)	6 (30%)	5 (17%)	15 (20%)
None	8 (30%)	3 (15%)	10 (33%)	21 (27%)

^aMore than one answer may be marked for each school.

The prevention experts identified four (5%) of the seventy-six schools as having a very systematic process and nineteen (25%) as having a "somewhat" systematic process for development, an indication that approximately 70 percent of the schools did not clearly articulate a systematic development process. In general, the development process involved the following stages: impetus, committee formation, information gathering, information synthesis, and implementation. The following are descriptions of the development process in the schools with rigorous processes:

Case 1: The health and physical education department heads from the two junior highs and high school in the school corporation got together to discuss their goals. Then we went back to our own school and met with out departments to create school goals. Finally the department heads met again to complete their list of goals and write the curriculum. I attended the last meeting and pulled the goals and activities together into a curriculum.—Curriculum director/DFS coordinator

Case 2: When the state mandated that schools have a comprehensive curriculum, I decided the comprehensive curriculum already used in the district needed reorganization. I called the principals of the schools and asked them to recommend one teacher and one parent that had an interest in AOD prevention. This committee went to the state curriculum fair and began organizing their ideas for writing a curriculum. Once the committee was formed they selected general goals and divided into interest groups based on what [grade] levels they wanted to serve. These groups established objectives for each grade level, then found activities that would meet those objectives. Then I compiled it and presented the curriculum to the board.—DFS coordinator

Case 3: Several of us (health, science, home economics, English teachers and DFS coordinator) went to the state workshop where they displayed all the available curricula. We broke into groups based on our school. When we got

back we brain stormed and then got together to share ideas. Then each group went off and wrote their own curriculum.—Elementary teacher

Most schools reported less participatory or systematic processes. The following are representative descriptions from schools in this category:

Case 4: When I was in graduate school, another high school classroom teacher and I needed to do a tenure project (e.g., create something that would benefit the school). After deciding to write the curriculum, we attended a state in-service and did some information gathering with other commercially developed curricula in order to get their project started. Then we taught the curriculum last year.—Physical Education teacher

Case 5: We have a former coach (Bob) who teaches health. He has a lot of charisma and the students like him. I collect materials on drugs for him, and he uses these in his class. It isn't really a curriculum. Bob just says what he thinks will work and I keep sending him whatever information I get my hands on related to alcohol and other drugs.—Curriculum director/DFS coordinator

Case 6: At this junior high school the curriculum was developed in 1986 because of one middle school teacher who had an interest in health. This teacher used the state resource guide and the State of Minnesota curriculum guidelines to develop activities that are integrated and infused into the health curriculum in grades 7 and 8. There is no written curriculum, and only this one teacher uses the curriculum.—DFS coordinator

The skill and training of the curriculum authors (see Table 8) has an impact on the quality of the resulting curriculum. Although training came from a number of sources, more than one-fourth (27%) of the schools reported no specific alcohol and other drug prevention training for the authors of their locally developed curricula. Elementary schools were least likely to have staff specifically trained in drug abuse prevention and high schools were most likely to have trained staff.

Table 8. AOD Training for Curriculum Authors^a

	Elem.	Middle	High	Total
Graduate courses	9 (33%)	10 (50%)	4 (13%)	23 (30%)
Undergraduate courses	5 (19%)	5 (25%)	6 (20%)	16 (21%)
State training	6 (22%)	2 (10%)	6 (20%)	14 (18%)
Other (Regional centers, vendors)	4 (15%)	1 (5%)	1 (3%)	6 (8%)
None	10 (37%)	6 (30%)	5 (17%)	21 (27%)

^aMore than one answer may be marked for each school.

To compensate for lack of training or background, experts outside the schools could have been used. However, only one middle and one high school (3%) used someone outside the school corporation to help in developing the curriculum. No elementary school reported using such outside resources. In most of the schools we interviewed, "locally developed" meant that school district employees themselves were the only authors and developers of the curriculum.

As noted earlier, schools frequently reviewed other curricula in the process of developing their own. However, as Table 9 shows, many schools excerpted portions of these curricula with little apparent understanding of underlying prevention principles, continuity, or copyright laws. For example, in one middle school, the curriculum committee made up of parents, students, teachers and administrators looked at the curriculum package, and added lessons to fill in gaps as identified by a student survey.

Sixty-four percent of the schools reported having curricula completely developed in-house. High schools were most likely, and elementary schools least likely, to have this type of curriculum. This could be a reflection of the dearth of commercial curricula for high school.

A great many curricula are hybrids of locally developed and commercially produced ones. A second type of curriculum had a core or majority of lessons that were locally developed but also included lessons from one or more purchased curricula. This type was found in about a quarter of the schools, most often in middle schools.

Occasionally, in elementary and high schools the core of the locally developed curriculum was purchased but was supported by materials developed by teachers.

Table 9. The Composition of the Curriculum

	Elem.	Middle	High	Total
All LDC	14 (52%)	13 (65%)	22 (73%)	49 (64%)
Core is LDC, supported by purchased	6 (22%)	7 (35%)	4 (13%)	17 (23%)
Core is purchased, but supported by LDC	3 (11%)	—	2 (7%)	5 (7%)
Combined aspects of two or more purchased	3 (11%)	—	1 (3%)	4 (5%)
State guidelines	1 (4%)	—	—	1 (1%)
No information	—	—	1 (3%)	1 (1%)

In several cases the core curriculum was a textbook. Several elementary and high schools combined the aspects of two or more curricula. One DFS coordinator said that a teacher was trained in "Here's Looking At You, 2000" and another one in "QUEST." Then the teachers came back and combined the best of those two programs into a program for the school. In another case at one junior high school, the Curriculum Director and At-Risk Coordinator went through state proficiencies. After writing objectives to meet those proficiencies, they chose lessons from commercially available packages to put together a curriculum that served their needs. Use of state guidelines was rare at all levels.

Evaluation

Table 10 indicates the level of in-house evaluation of these locally developed curricula. Only 24 percent of the schools reported having some kind of formal evaluation in which they could identify instruments or goals or a data collection strategy. High and middle schools were more likely to evaluate their programs than were elementary schools. The evaluations that existed did not show much rigor and for the most part were based on teacher satisfaction with the curriculum. Some respondents readily admitted that this was a weakness of their program and that they "should" be conducting some form of program evaluation. Others were not convinced of the importance of evaluation in their program. When asked about evaluation one respondent replied, "I haven't heard any complaints from the teachers." Another respondent reported that he would not know what to do with evaluation results if he had them.

As can be seen in Table 11, most schools did not identify any theoretical model as a guide to curriculum development. A few schools reported grounding their curriculum in state guidelines, but no other prevention model was mentioned by the respondents. Only three schools did a needs assessment and nine compared the activities they had identified to their theoretical model (state guidelines). Only two schools did either a pilot or feasibility study. While most schools systematically reviewed other curricula, only 66 percent have put their curriculum in writing.

Table 10. Evaluation Process

	Elem.	Middle	High	Total
None	9 (33%)	8 (40%)	10 (33%)	27 (35%)
Formal	3 (11%)	6 (30%)	9 (30%)	18 (24%)
Informal/Sporadic	10 (37%)	5 (25%)	7 (24%)	22 (29%)
In planning stage	5 (19%)	1 (5%)	2 (6%)	8 (10%)
Unknown	—	—	2 (6%)	2 (3%)

Table 11. Key Elements^a

	Elementary	Middle School	High School	
Theoretical Model ^{a,b}	1 (4%)	8 (40%)	3 (10%)	12 (16%)
Needs assessment	1 (4%)	1 (5%)	1 (3%)	3 (4%)
Collects activities ^a	18 (70%)	17 (85%)	20 (67%)	55 (73%)
Activities compared to studies ^a	1 (4%)	6 (30%)	2 (7%)	9 (12%)
Written document	19 (74%)	14 (70%)	12 (43%)	46 (66%)
Pilot/feasibility ^a	0	0	0	0
Training	17 (67%)	12 (60%)	7 (23%)	36 (48%)

^aSussman's model

^bOnly theoretical model mentioned was state guidelines.

About half of the schools trained teachers to use the curriculum. When asked to describe the training, no school identified more than one in-service meeting (maximum 1 hour in length) in which teachers were trained. Training was exclusively on implementing the curriculum and did not include information on drug use or prevention theory or concepts. In some cases, the respondents felt no training was needed because the teachers who were to implement the curriculum were the authors.

DISCUSSION

This study of the development process used by local schools and school districts to develop drug abuse prevention curricula occurred a year after a federal mandate to include drug information at all grade levels. In this particular mid-Western state, federal and state funds were available to assist schools in implementing the mandate. Over half the schools in the sample developed new curricula during this one-year period, and over half of them took advantage of the funds. In review of the findings of this study, strengths and weaknesses in the process are noted and described in the following paragraphs.

Needs Assessment

It appears that in the vast majority of the schools in this sample, there was little assessment of needs. One school at each level (elementary, middle, and high) referred to student surveys before developing the curriculum. Sixteen percent of all schools (notably higher at 40% in the middle school) reviewed state guidelines prior to development. State guidelines were based both on a conscious view of needs and on understanding the dynamics of drug abuse prevention. However, state guidelines are not sensitive to individual community differences. Since the

majority of those schools (55%) that were developing their curriculum locally claimed to want locally developed curriculum to meet local needs, state guidelines may not have been the best source of a needs assessment. It is interesting to note that schools wanting to meet local needs with this curriculum would not carry out an assessment of local needs.

Theoretical Model

None of the respondents identified a theoretical model of prevention. This may be explained by the dearth of drug prevention training represented on the committees who designed the curriculum. About 70 percent of the committees had at least one person who had direct alcohol and other drug prevention training. Many reported selecting people to be on the committee because of their role in the school (e.g., principal, counselor, etc.) or their interest in alcohol and other drug issues. For the 51 percent who had graduate or undergraduate courses in alcohol and other drug abuse, a quickly changing field where prevention technology is relatively complex and particularly amenable to intuitive application, the expertise in prevention gained only from college classes is not likely to be sufficient for keeping abreast of the latest research in prevention. In addition, only 4 percent of the schools reported reliance on a person or a group outside the school (e.g., hospitals, treatment centers, community or state or university professionals), for specific input during the development process.

Collecting Prevention Activities

Most schools reported using commercially available curricula or state guidelines during the development process. In this state, the state Department of Education offered free a series of workshops and trainings about commercially available curricula. Activities from these sources were liberally used in local products. Thus, the role that a commercially available curriculum plays in the development of a locally developed curriculum is critical. Presumably, the higher the quality of the commercially available curricula, the better the locally developed curriculum for those schools that "mix and match" from commercially available sources. However, as Hill et al. [3] and Dusenbury [8] report, most commercially available curricula have not been rigorously evaluated either.

Pilot Testing

No school in this study mentioned any pilot testing before implementation of the curriculum or any of the activities included in it. However, 31 percent of the schools reported that they would be reviewing the curriculum periodically, and 22 percent said there would be routine updating. Yet, no school could define the periodic review or routine updating process. Several school respondents reported

that as long as there were no complaints, they would not be changing the curriculum. Only one school reported any monitoring for compliance.

Evaluation

Evaluation components for most of the curricula reported were weak. Respondents, however, were most likely to mention evaluation as a training need. Thus, they recognized that they need to evaluate their curriculum even if they are not doing so at this point in time.

Although a few local schools interviewed for this study have a systematic process for developing alcohol and other drug abuse prevention curricula, the processes that most districts use would not be likely to produce an empirically grounded primary prevention curriculum when compared to the Sussman model [9, 10]. Without an empirically-based curriculum, the outcome local districts aspire to achieve would be unlikely (see Table 4).

This study highlights a major need in the prevention field. While research has identified the strategies for prevention, local school districts in this study have not implemented those strategies. Thus, the relationship between the research findings and the prevention program the average American student receives is at best haphazard. Federal mandates and public monies have facilitated for schools the process of developing materials for drug abuse prevention. However, both the development process and the process by which prevention information is transferred are not defined well enough to assure the American public that the dollars spent on prevention will have the intended results.

To date, most of the prevention research has focused on the development of optimal prevention curricula. Under ideal conditions some curricula have been shown effective [4, 6]. A shift in focus is now needed to enable educators and policymakers to implement research-based prevention at a local level. One solution is to convince public schools to purchase the best evaluated curriculum on the market. However, many curriculum theorists have found that the most effective curriculum is that in which teachers themselves have some degree of ownership [11, 12]. Thus, the ability of a local school district, local school and local teacher to take materials and adapt them to the needs of their students is critical if the curriculum is to be used effectively in most classrooms across the country.

To facilitate the development and implementation of high quality drug abuse prevention, several critical components are necessary (see Figure 2). First, the researchers and evaluators from major curriculum studies projects need to develop, from the pool of prevention activities and teaching methods, low-cost, easy-to-use activities and lessons that are clearly linked to changes in predisposing, enabling and reinforcing factors identified for drug use. Such materials should be widely disseminated at low cost.

Second, teachers and administrators need to be provided ongoing training in the basic concepts of prevention and etiology of adolescent alcohol and other

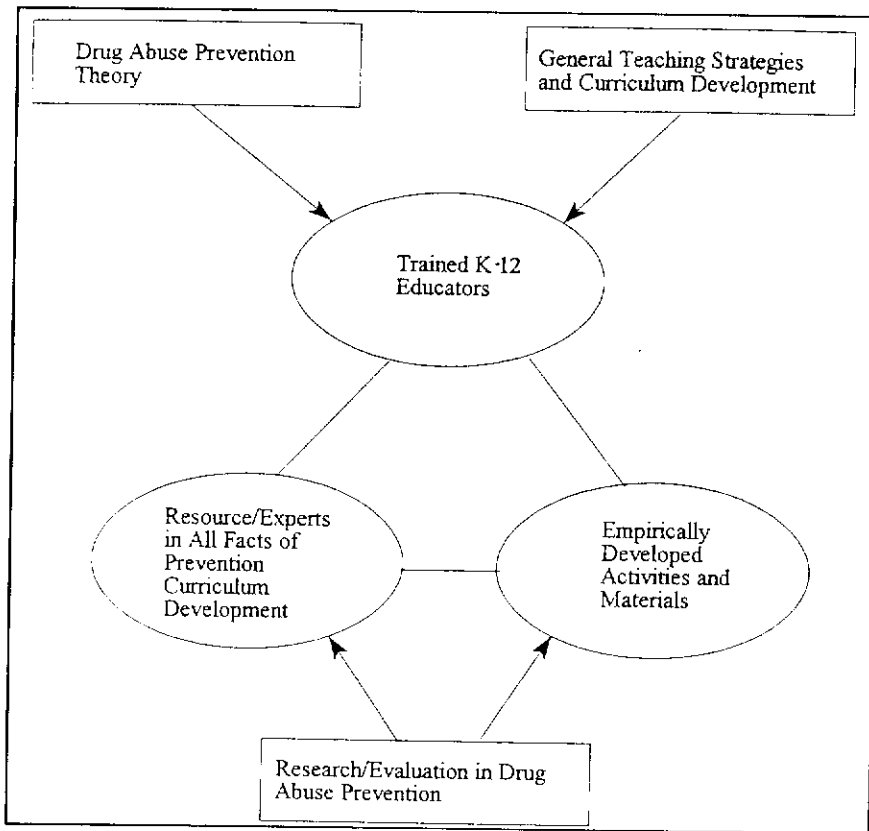


Figure 2. Proposed locally developed curriculum model.

drug use/abuse. Equipped with this background knowledge and their expertise in the situation in their own community, local educators will be able to review activities based on an empirically grounded primary prevention model. Basing selection of activities on such a model improves the likelihood of successful outcomes for students.

A third component of this structure is a cadre of resource people with expertise ranging from chemical dependency (e.g., professionals working in treatment centers) to curriculum development specialists, who may not have expertise in prevention but who have experience in the generic skills of developing and testing a sound curriculum. This cadre must be available for consultation to local schools during the development process. Because no one school can be expected to keep current with all the recent development in the field, expertise from outside the school must be valued and woven into the development process. These

experts would eventually be seen as an integral part of the process. Technology, such as the internet or interactive video, could be used to facilitate this process [13].

By delineating these roles in the curriculum development process at the local level, it is more likely that the curriculum developed would be empirically grounded and that the curriculum will have the desired impact (e.g., prevention of drug abuse) among teens.

In conclusion, this study is a snapshot of the process schools are currently using to develop their own drug abuse prevention curriculum. Data indicate that, for the most part, the process is neither systematic nor theoretically grounded. Thus, students in these schools are not exposed to curricula that are likely to replicate the positive prevention impacts found in the literature. In light of the recent report of increases in drug use, new approaches need to be explored. A combination of three components (educators well grounded in prevention theory, empirically developed activities and materials and a cadre of resource consultants) would provide the essential ingredients for local schools to develop quality curricula sensitive to community needs for the prevention of drug abuse.

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Direct reprint requests to:

Kris Bosworth, Ph.D.
Smith Endowed Chair in Substance Abuse Education
University of Arizona
College of Education
P.O. Box 41995
Tucson, AZ 85721-0069
e-mail: BOSWORTK@U.ARIZONA.EDU