

Media Message

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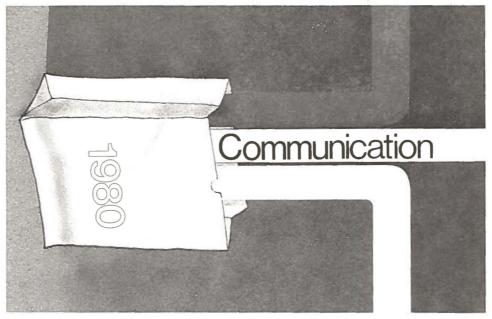
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Author Error

D.J. Engel, author of "Towards the Betterment of Children's Television" (*Media Message*, Vol. 9, No. 1.) omitted one line in his manuscript. Please insert on pg. 5, col. 2, paragraph 3: "If it is a replicated study seeking to substantiate previous results it is commendable; if not, it shows a lack of information and is a great waste."

Educational Communications in the 80's

Maurice Bourque

As we prepare to wave goodbye to this decade, so much has happened so quickly that predictions for the 80's can only be based on things and trends which are beginning to take shape in 1979. And even those predictions hold no guarantees of being accurate.

In 1969, for example, just 10 years ago, could prognosticators have foreseen the extent of the energy shortages, OPEC, Watergate, wage and price controls, declining birth rates, the P.Q. and National Unity, Alberta's Heritage Fund, three popes in less than six months, and, last but not least, Joe Clark?

As they say in legalese: "notwithstanding any of the foregoing" let's look to our fuzzy crystal ball anyway.

But before talking about educational communications in the 80's, we must talk about education in the 80's. To do that, we must talk about the society of the 80's.

The Eighties

What will your neighborhood, your province, your country, your world be like a few years down the pike?

Costs, taxes and inflation will continue to rise.

The 70's were labelled the "me decade". Thank God that's beginning to change. The 80's will see a society where the individuals in it will gradually realize and accept their inter-dependence with their neighbours.

Provincialism will continue to erode our collective strength. This will apply equally to the economic world and to the educational world.

Households with working single parents and where both parents work will continue to increase.

The U.S. will continue to "own" Canada. If you looked closely at the 500 top companies in Canada, you would be horrified at the extent of foreign, mainly U.S. ownership and control. We think we know the extent, but we don't really realize how serious the problem is.

In the last 28 years, Nova Scotia has known only five years of *positive* inter-provincial migration of children under fifteen, whereas Ontario and Alberta have had positive migration 22 and 21 years respectively.

"The 80's will see a society where individuals will gradually realize and accept their interdependence with their neighbors."

Newfoundland oil will not help the economic situation in the other three Atlantic provinces appreciably.

Canada's relatively high wages for relatively low productivity will continue to play games with our import-export ratio — Canada is presently losing that game.

More and more people will live in huge apartment buildings human filing cabinets.

In the early 70's, the social and political pendulum had swung pretty far to the left in North America. For the last couple of years the pendulum had been swinging to the right, carrying with it a conservatism that could have disasterous effects on education in the long run.

T.V., all 22½ hours a week of it which you and your students watch, will continue to influence Canadians more than any other single thing in our lives. As teachers, you will continue to fight, harder and harder, to counteract the inherent passivity built into watching T.V. The disco generation is the T.V. generation grown up... Except for some notso-subtle body language, dialogue is virtually non-existent.

Declining birth rates will continue in North America, but not in the developing countries.

The concept of a "conserver society", a society whose philosophy is to *conserve* as opposed to *consume* is in the embryonic stage. But it will develop and we will be forced to adopt it as a way of life. Educators and education can lead the movement, or spend years trying to redefine themselves to the new realities of life.

Canada will continue to exist, in a slightly modified form perhaps, throughout the 80's. However, I can't guarantee Canada's future beyond 1990.

Bilingualism and trilingualism will continue to become more and more the norm. Only in North America is unilingualism considered smuggishly to be the norm.

The status of women in society will not reach equality in the 80's. The 70's saw a tremendous amount of consciousness raising in a short time on the part of both women and men. But the real work of attaining true equality will be slow and arduous, but progress will be made. True equality, however, will take at least two generations to achieve. It would be unrealistic to expect to erase hundreds, perhaps thousands of years of inequality within one generation.

Society in Canada will reach a plateau in formal education — at least for a time. A university degree is no longer a guarantee of a job.

There you have it — a brief look at society in the 80's. I admit it's not a very rosy picture, but I think that being prepared for the worst should not stop us from hoping for better.

Now that we have seen what society will look like in the years ahead, let's look at education in the years ahead, and, to some exyears, the picture I see for education is not much rosier than the picture I saw for society. Education today is being shot at from all sides. It will continue to be so. It seems to be the target of

tent, at your role as educators and

as communicators. I'm sorry to say

that, based on the past couple of

from all sides. It will continue to be so. It seems to be the target of every opportunistic politician, of every ill-informed parent, of every poorly paid newspaper reporter, of every unemployed person dissatisfied with the so-called capitalist system which has conspired to make him or her a "failure". Education and teachers are also the target of businessmen who see an open and democratic system of education for everyone as a threat to the privileged position they enjoy in life, as a threat to the elite to which they believe they belong.

During the 60's, education was popular. Even politicians were in favour of spending money on it. How times have changed. So has our popularity. People find that education is too expensive (they look at dollars only — they don't realize that in the late 60's, spending on education reached 6.99% of the country's GNP and that by 1974 that percentage had dropped to 5.97%.

This trend will continue in the 80's.

While people will continue to criticize us, as they do today, for evolving the education system too rapidly, little is said about the extent to which society as a whole has evolved and how this rapid evolution has complicated the teacher's task. Consider some facts published recently by the National Education Association of the United States. (I'd like to be able to quote similar facts on the situation in Canada, but since we don't have a federal office of education in Canada, no one is doing the required research in education. We just don't have access to those

types of statistics). However, on a per capita basis, the statistics would probably be similar in Canada.

FACT: Since 1975 the majority of America's school children have come from homes where both parents, or the only parent, worked during the day. The typical American pre-schooler spends more hours a week watching T.V. than he or she does in meaningful contact with either parent.

FACT: One out of every six American youths now lives in a single parent home. In 1976, the first year ever, more than one million marriages ended in divorce and in many cases neither parent wanted custody of the children. In Maryland alone, 6,000 parents went to court to give up responsibility for a teenage child.

FACT: Two million children a year are so physically abused by their parents that they statistically qualify as "battered". Twenty million American children live with an alcoholic parent.

FACT: U.S. teachers are the victims of more than 100,000 serious assaults a year. Attacks by pupils on fellow-pupils number in the hundreds of thousands. A U.S. senate sub-committee estimates the costs of school vandalism at \$600 million a year.

FACT: Arrests of children under 18 for murder, assault, rape, and robbery are up 200% in 15 years. Arrests for lesser crimes are up 200% also; arrests for prostitution are up 287%; arrests for trafficking in and using drugs, up 4,600%. One of each nine American youths will be arrested and in court before the age of 18.

I don't care how blase you may be, you have to find statistics such as these frightening. Teachers in the U.S. and Canada are being asked to adapt their teaching methods to these new realities. Understandably, they are doing so with varying degrees of success.'

Many teachers are giving up and dropping out. In the U.S., the number of teachers with 20 years or more experience has dropped by half since 1971, with most of the decline coming in the last five years.

The larger truth seems to be that the family has joined the list of institutions that are no longer able to fulfill their traditional roles in the lives of young people. As a result, the school — not by consent, not by decision, but by default — has been, for an increasing number of children, the only institution that provides for orderly socialization and maturation.

Teachers have become and will continue to be society's last alternative to abandoning its heirs to the streets. At great physical and psychic cost to themselves, teachers will continue to be the buffer for an adult world that often fears its own children. As teachers you have been cast in a role you never expected to perform and one that society will continue not to fully appreciate.

Another thing which will complicate the teacher's situation is the polarization which will accentuate in the coming years concerning, at extreme ends, the two possible goals or philosophies of education.

Philosophy

The first philosophy aims at an educational system which, while giving a basic knowledge of certain specific subjects, has as its ultimate aim the "production" of autonomous individuals capable of evaluating and processing for themselves what is presented to them, capable of thinking for themselves, and capable of choosing wisely among various options. Attempts are made to prepare that individual to face a world of tomorrow, largely unknown, but where that individual will have to show a

great capacity for flexibility.

The second philosophy, the one which, in the coming years, will continue to gain in popularity as it has in the past couple of years, aims at an educational system which will produce someone whom industrial managers and administrators can easily pigeonhole in their organization. This type of educational product can easily be trained not to question the existing order of things, to do his or her work as it is dictated from above.

This person can be moulded according to the norms and needs of industry. Unfortunately, many of the proponents of the "back to basics" movement were also proponents of this second philosophy, the philosophy of the industrial robot. Many well-intentioned parents were also snowed by a well orchestrated publicity on the part of industry. As long as jobs remain scarce, as long as the economy remains unhealthy, this philosophy of education will continue to gain momentum.

You, as teachers, on the other hand, lean heavily toward the first philosophy, that of the autonomous individual. You told us so in Canadian Teacher Federation regional seminars on quality education held in Moncton, Montreal, Toronto and Calgary and again at two national conferences on the subject, one in Ottawa, one in Winnipeg. This, obviously, will keep you at odds with some vociferous segments of society. Of course, some parents really don't know what they want. One father once told me: "I want my daughter to learn to think for herself - but I don't want her to reject my values".

Still another area of misunderstanding on the part of the public at the present time and in the foreseeable future is in what you are expected to be to your students: teacher, surrogate parent, guidance counsellor, sports director, administrator, model, stimulator, organizer and creator of heaven and earth. You will be asked by society to correct all of the problems it creates. "I can't do a thing with my child. He won't listen to me. I hope you are going to be able to teach him obedience." Society will continue to ask you to give individualized instruction to 35 kids at once. Society will continue to tell you that kids should not fail. that it is bad for their little egos, and then will act surprised when told that some kids are not ready to enter university.

"''Back to basics' is bunk. You've never left them."

Learned university people will continue to tell you that students can't read, write, or do math the way they could 25 years ago. It is no use reminding the university that 25 years ago a very small proportion of students went to university, therefore, the cream; while today, it's not only the cream who goes but almost the whole bottle and that it is unrealistic to expect everyone to be equally prepared to enter. Why don't universities refuse students who are unprepared?

Refuse them? Who are we kidding? Universities depend on provincial grants received, based on the number of students they accept. So it's a question of survival for the universities and it's easy to blame the school, it's even popular.

A few minutes ago, I mentioned "back to basics". Until recently, teachers and departments of education had very few statistics to fall back on to refute the charges that today's kids were weaker in the three R's than were kids 20 or 30 years ago. However, the Alberta Advisory Committee on

Educational Studies, a short while back, released a report jointly with the Minister of Education who showed that today's grade 8 children in Alberta, despite the fact that they average two months younger than grade 8 children in 1956, scored significantly higher in general scholastic ability, in reading and writing. They scored fractionally lower in math. I believe that, if similar studies were carried out anywhere in Canada, the results would be substantially the same. "Back to basics" is bunk. You've never left them...

The business community may not believe you, but then perhaps their sense of today's reality has been warped by nostalgia for the good old days. Is it any use trying to convince the business community that the young ladies they hire as secretaries may no longer be the cream of the crop? BWL (before women's lib) the cream of the crop was satisfied to aspire to become secretaries. Today, the cream of the crop aspires to becoming the bosses. Therefore, what bosses are now getting is often very much less than the cream of the crop. They are, more and more, people who, 10 or 15 years ago, probably would have dropped out after grade 7 or grade 8. (I hope this will not be interpreted by anyone as being a put-down of secretaries, some of whom, if there was any justice in the world, could command higher salaries than their bosses.)

Higher Expectations

Teachers today are doing a better job than ever, in increasingly difficult conditions, and faced with greater expectations than ever on the part of society. I am convinced that they will continue to do in the 80's as fine a job as they have done in the 70's and in the 60's. But where we as educators and as teachers really blow it is at the level of our communications with parents, the indirect consumers of education (they pay the bill). If you can convince parents and the local media of your value to society, they will convince the others.

Your news releases, your newsletter and all your other public relations efforts will meet stiff resistance in some circles. You will have to face the "budget-bitchers". They are the many Canadians who squander millions on alcohol, drugs, junk food, superhighways and so on, yet carp about spending what's needed on proper school facilities and equipment, decent salaries for teachers and the development of sound educational programs which will adequately respond to the needs of *all* children.

Your public relations activities will have to aim at better informing taxpavers who have no children in school about educational goals. In four to ten years, these taxpayers will be a majority in Canada. They must be made to understand that education is still a good long-range investment of their dollars. These people must be made to understand that children have the same rights as they had as children and that all adults in a society that respects itself have an equal responsibility in education of the next generation. That may not be easy.

As Laurier LaPierre told teachers in a Canadian Teachers' Federation sponsored Quality Education conference in Winnipeg last spring "Adults barely tolerate children in our society". Children have no rights except those which adults consent to give them. Your public relations will have to show teachers as child advocates, as people whose primary concern is the child. Hopefully, that public relations will consist of more than empty words. The International Year of the Child is coming to a close. January 1980 will be a good time to remind the public that for teachers, every year is an international year of the child.

Internally, you are going to have to keep encouraging your teachers to "keep the faith". That won't be easy. Job uncertainty, cut-backs, educationally stupid decisions made by the Department of Education or Treasury Board mucky-mucks are rough on teacher morale.

"Teachers are doing a better job than ever, in increasingly difficult conditions and faced with greater expectations."

Every teacher has the most important public relations job of all. Convince teachers that as individuals, they have a direct influence on the attitude of every parent of every child they encounter in a school day; individual teachers will do more to enhance their image, to counter lay-offs and budget cutbacks than anything that a teachers' union as an organization could do, no matter how big a campaign you were able to mount.

To help teachers, your communications with outside publics should tell those publics why parent-teacher interviews are important. Explain what's happening at the next professional development day. Parents should feel welcome in schools. Parents should be invited to professional development days. Parents have a right to know why such and such a decision was taken, and parents have a right to your honesty.

Somehow, as communicators and as educators, you are going to have to train teachers to think public relations.

Educate Public

Here are some ideas that will povide positive public relations in schools. By the way, public relations is not a dirty word. Its purpose is not to distract people from the truth or to create false images of reality or to do a "sales job" on an inferior product — its purpose is to educate the general public about what really goes on in schools.

So again, here is a list of ideas for good school-community public relations.

Teachers should publicize student awards for academic as well as physical merit. The public will consider such student achievements as school/teacher achievements and proud parents provide good publicity. Taxpayers want value for their money; this provides one indication that they are getting it.

Some districts give their new teachers a small dinner each September. The press may enjoy covering and providing newspaper coverage of the event, especially in smaller centres.

Teachers who are involved in service clubs and community projects may receive little personal publicity, but they may be very effective in influencing non-teachers about our profession.

Any awards to teachers, either public or professional, deserve attention. If we can manage to get media to notice such awards, all area teachers can share a colleague's pat on the back.

It may be regrettable but it is true: professionals must look like professionals if they want to be treated like professionals. Much as I love my jeans and my sandals, you must admit that, had I shown up here tonight wearing them, many people here would be listening to my comments from a different reference point than they are now. And still on the topic of professionalism, a certain amount of slang in our spoken language is inevitable. However, if you find yourself using more slang than correct English when speaking to parents, or for that matter, to students, it

might not be a bad idea to consider whether the image you want to project and the image you are actually projecting are one and the same.

If you are not already doing so, why not, from time to time, send a short newsletter to parents: a few short paragraphs announcing specific projects you are planning, a short paragraph congratulating a particular student for something he or she has done, a paragraph announcing to parents that you are pregnant, a paragraph explaining to parents what you did during your last professional development day. You might try to explain what's happening in your extra curricular school activities, why such and such a decision was taken by the school, ask for suggestions, and so on. Before long you will notice that your short newsletter, your monologue, will become a dialogue. Parents will call you to ask questions and perhaps even with offers to help. Teachers are doing great things in the classroom. We need only open the doors to show parents what it is that we are doing.

"Why is it so difficult to see the parents that we want to see, that we should see?"

You have no idea how I hated "meet the parents nights". The only parents you ever got to see were those whose kids had straight A averages and who were there for a pat on the back. Why is it so difficult to see the parents that we want to see, that we really should see? You might ask yourself if your planning is sufficient. Why not send personal invitations to parents, setting times for your interviews with them? (There is nothing worse than waiting in the hall for an hour.) Include an R.S.V.P. in your invitation. Why not have coffee and doughnuts on hand? And

unless you object strenuously to smoking, have a couple of ashtrays hanging around. Remember that when parents come to see you at school, you are on "home ground" but they are not. Don't allow your desk to become an artificial and psychological barrier in your discussions. Find some other form of seating arrangement.

"Try to understand the problems that confront parents."

When was the last time you called a student's home to wish him or her a speedy recovery from the flu or the recent tonsillectomy he or she has just undergone? When was the last time you sent a personal note of praise to the parents of a student who had done a job particularly well? It doesn't really matter whether the job well done was an unusually tough math assignment or the breaking of the school high jump record. Think back at how often your own teachers called your home to wish you well or sent notes of praise about you to your parents. Think back at how good you would have felt if they had ...

One of the most effective means of gathering and sharing schoolcommunity information is to create a school-community committee. It might be chaired by a school board member. This would ensure that feedback got not only to the school and to the community but to the school board as well.

Don't use jargon. There is nothing that puts the public on its guard more quickly than the use of terms which have no meaning to them and which are often difficult for educators to define. It may be fine to speak of behavioural objectives, cognitive learning, statistical significance, criterion reference testing to an audience of teachers but to the public, this often seems like another method of reaffirming that education should be left to the educators.

Last fall, one of the schools in my area invited parents to come to school on five successive Monday evenings in order to explain to them the intricacies of new math to ensure that they, the parents, could feel comfortable in helping their children with their homework. This meant extra work for teachers, but you have no idea how much it helped the image of the teachers in that school.

Why not prepare a list of teachers who are available to help and assist community groups or give talks? The list might be distributed to community organizations.

Have you ever thought of sending parents, at the beginning of each year, a brief biographical sketch of yourself indicating education, hobbies, experience and so on. Obviously, it would have to be tactfully phrased and written in a rather light vein so as not to appear egocentric. It is, however, an idea which might be developed.

Invite parents to assist in extracurricular activities. Recognize their contributions in a suitable manner.

Try to understand the problems that confront parents. Some may be shy, busy with small children or have job commitments. An extra effort must be made to accommodate such parents.

Why not set aside a few minutes in each school staff meeting to discuss any communication problems?

"...teachers are going to have to learn to say 'no'."

Let me close with a few final thoughts. Somehow, you've got to

get the message to those few teachers in your midst who, one way or another, are not pulling their share of the public relations cart; who single-handedly may be undoing the good public relations image of a whole school.

Somehow, teachers are going to have to learn to say "no" to new or additional programs. Teachers and schools can't take on any more societal responsibilities. Your main enemies right now are (a) lack of time; (b) overcrowded classrooms; and (c) a lack of trained specialists for special programs; (d) programs that some uninformed people call frills.

"...you've got to convince parents that professional development days are not a waste of time."

Somehow, you've also got to get the message across that the department of education is responsible for the decision to adopt various programs and courses, not teachers...so teachers shouldn't be criticized for them.

Somehow, you've got to con-

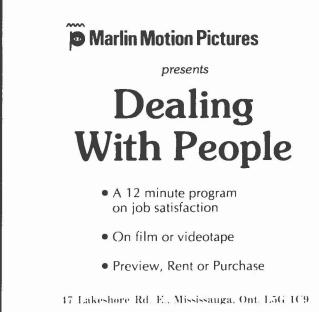
vince parents that professional development days are not a waste of time. Some of you may have to start by first convincing yourselves and your colleagues. Right now professional development days contribute more to the rust on your halo than any other single factor. Mothers working outside the home and single-parent families find these days particularly frustrating. Finally, I would like to quote two past-presidents of the Canadian Teachers' Federation (CTF). One of them, Ian Fife, in his presidential address to teachers attending CTF's Annual General Meeting, said, "In my experience, I have seen so many good things happening with students, in classrooms, in schools and in school systems that they are innumerable. Sadly, very little of this information is made public and when it is, it is usually to a very limited public. Let's open the doors and start talking and showing".

And Tom Trafford, titling his CTF presidential address "Something There Is That Doesn't Love a Wall" from a poem by Robert Frost, called on teachers to become more militant, not only about money matters but about student-

centred and social issues. What he was telling us to do is open our doors to the world. He was telling us that if the school gets involved in the community, then the community will get involved in the school. And that is the first step in solving many of our image problems. So to paraphrase Robert Frost and Tom Trafford: "Since our schools have walls, and since people don't like walls or the secrets which people imagine lie behind them; we'd better at least make sure that the doors are open and the windows are kept clean.'

What you heard tonight were the sometimes rambling thoughts of a man who lays no claim to papal infallibility. I hope that tomorrow, you will argue some of the points I have raised.

Maurice Bourque, a native of New Brunswick, is currently Director of Communications for the Canadian Teachers' Federation and Director of French Language Programs. A former high school French teacher, Maurice spoke to the Nova Scotia Teachers' Union, Halifax, on the theme education in the 80's.





There's more than one way to Skinner a module

Richard A. Schwier

Why are you reading this? Assuming that you are still reading by the third paragraph, what motivated you to read beyond two?

Most developers, at one time or another, have systematically followed an instructional idea from conception, through elaborate stages of learner analysis, goal formation, task analysis, development, field-testing, and evaluation, until a failure-proof self-instructional module was achieved - only to have it gather dust on a shelf. It was a polished piece of instruction, but unfortunately it was also boring, providing little instructional impact because of an inability to inspire interest. On the other hand, some self-instructional materials (with or without the aid of extensive instructional development processes) are used constantly, provoke enthusiasm, and are even occasionally stolen because of their popularity.

What qualities do more popular materials possess that others lack? What methods can be em-

ployed in the development of selfinstructional materials to ensure their motivational impact? Instructional development literature provides only a limited list of practical suggestions for making instruction more appealing. No one seems to know what makes some programs interesting and highly motivating while others remain tedious, but experienced developers know that it is not sufficient for self-instructional packages to be instructionally sound; that is, capable of teaching.

DO NOT READ THIS ARTICLE.

Rather, skim the headings. If a heading catches your eye — read on, otherwise, don't waste your time, or your initial motivation to learn by reading unnecessary prose. Read only the sections that are important to you, and disregard the rest.

Still reading?

This article will compile several external motivating devices, the "trappings" associated with making self-instructional materials more interesting. Theorists define motivation in various ways, but most definitions share three characteristics: motivation activates or energizes behavior, maintains behavior, and directs behavior toward a specific goal or outcome. Serving these characteristics, the following suggestions will be organized under the categories of capturing, sustaining and directing interest.

Capturing Interest

The first objective in motivating potential learners is to grab their interest. Many students believe that learning is a painful process, as indeed, it often is; so the developer of self-instructional materials is presented with the problems of breaking down existing barriers. What techniques are available for catching the eye of the learner and drawing him into a learning situation — painlessly?

Format

The instructional format employed in the creation of self-instructional materials can be a source of motivation for the learner. A variety of formats are available for the developer's use, and should be selected according to the needs and abilities of the learners as well as their appropriateness to the instructional task. Thiagarajan, Semmel and Semmel (1974) explored the types of formats available to the developer of self-instructional modules. and divided them into print and multimedia formats. A list with a brief description of each follows.

Print Formats

Textbooks and Directives: Although textbooks are seldom considered motivating, effective elements from other formats (objectives, criterion-referenced test questions, simple sentences) can be used to enhance their ability to motivate the learner.

Information Mapping: This is a new design for the presentation of written material. Information to be presented is broken into concepts, structures, processes, procedures, classifications, facts, or proofs. Then, depending upon the type of information, blocks of instruction are created which describe various approaches to that information. For example, Thiagarajan, et al (1974), stated that a procedure map would include the name of the procedure, procedure table, flowchart, starting signal, stopping signal, decision table, checklist, and worksheet blocks.

Programmed Instruction: While programmed instruction is not generally considered an exciting learning format, it applies the principles of reinforcement effectively. If methods for making these materials more interesting could be employed, this would be a more effective instructional format.

Multimedia Formats

Audiotutorial Module: This is a type of module instruction which relies heavily upon the use of audio tape, usually in conjunction with a text or supplementary materials. Although this format may provide a novel approach to instruction, listening to long segments of taped instruction can be tedious. To be motivating in the long-run, additional techniques for maintaining interest are necessary.

Multimedia Modules: These modules of instruction incorporate both visual and audio modes, usually in the form of sound-filmstrips, slide-tapes, videotaped instruction, films and/or transparencies. This format has a high potential for motivating learners, but often it has not been realized. The variety experienced in multimedia modules provides an element of motivation which is not inherent in other formats, but variety alone may not be sufficient to sustain interest.

Minicourses: This format was developed for teacher-training around the microteaching technique. Exemplary teaching methods (questioning, organization, discipline) are presented via film or videotape, and the viewer is instructed to identify the skills used. Learners are then taped presenting a model lesson, and subsequently perform self-evaluations of their performance. Reteaching and further self-evaluation follows. Although this method was developed for teacher training, it may have implications for other self-instructional situations, and should be considered.

Games/Simulations via Computer Assisted Instruction (CAI): The individual can interact with a computer in a gaming situation. This is a particularly attractive medium of instruction, and mini computer systems are bringing CAI into the price range of many schools.

Employ Message Design Effectively

Effective use of design principles can lend power to an instructional module. Making effective use of visual cues, varying the layout of the copy, using illustrations, different colors, and providing a variety of methods to present instructional stimuli can be most important. This will help allay visual boredom, but attempt to avoid over use of trite mechanisms, such as swelling music, and freeze-frames in video productions. Over use of trite techniques can distract from the content of instruction. This holds true for almost any format variables. Before employing any of the variables, try to consider whether they are distracting, and might interfere with learning. For a comprehensive treatment of message design principles see Fleming and Levie (1978).

Use Attractive Packaging

We can learn an important lesson from industry. The packaging of a product is all-important in attracting learners. Smudged, mimeographed copies of a twelvepage self-instructional module are not going to generate a great deal of excitement. The thought, time, and money expended on creating a visually appealing instructional module are well spent. Encyclopedia sales would suffer dramatically if volumes were not beautifully bound with gold lettering, as many encyclopedias are purchased because they look impressive on the shelf. While the purpose of instructional development is not to construct an impressive shelf decoration, attractive packaging can be instrumental in luring prospective learners into the web.

Create a Need

The courtship period between a learner and self-instructional materials is brief. Once a potential learner has been attracted to a selfinstructional module, interest must be quickly captured. Assuming that the content of any module will not immediately captivate the interest of every learner, a need must be created for the information which is to follow. This can usually be easily accomplished by including a statement about the importance of the information to the learner at the beginning of the segment. Of course it is easier to describe the importance of safe driving habits than salmon fishing to the learner, but most topics can be dealt with, at least minimally, in this manner. The importance of this step cannot be overstated, because if interest is not achieved at this stage of the instruction, little can be done later to regain it.

Sustaining Interest

Once the learner had been successfully lured into a learning situation, what can be done to promote his continued interest in the learning task?

Vary Instructional Stimuli

Present the instructional content in a number of different ways. Popham (1971) indicated that the use of small-stepped programmed instructional segments, anecdotes and short stories, sections requiring the student to make a mental response, and branching techniques could be combined to create an effective instructional module. Avoid letting the student get into a rut, because interest and learning will suffer as a result. Part of the strength of multimedia approaches to self-instructional materials resides in the novelty of the variety of instructional stimuli which bombarded the learner.

Change Pace

Instructional segments within a self-instructional module should vary in length, and the learner should not be able to plod along at an even pace throughout instruction. Many early programmed texts presented volumes of material, all broken into equally short frames of instruction. The texts were generally effective, but also excruciatingly boring. Professional entertainers realize the value of varying their pace, mixing slower and faster songs, or hiding mediocre humor between the best jokes, in order to "milk" an audience. Users of self-instructional modules require the same attention in order to get the most out of the learning situation. In films and videotapes the levels of action can be manipulated by the producer to sustain interest, but similar effects can be applied to other media. The pace of the material can be manipulated by varying the length of segments and the level of student involvement.

Introduce Novel Situations

The most common practice in writing instructional material is to build learning on familiar experiences and on what is already known. This is a sound procedure, as familiarity reduces a student's fear of instruction. Occasionally, however, novel situations are desirable. Removing the props of familiarity requires the student to attend differently to the material. and will sustain interest in the module. This does not refer to the use of shock or surprise, merely to removing the learner from a familiar context. Under most circumstances the learner will profit most from material which builds on what is already known, but occasionally introducing a novel situation can stimulate interest.

Use Music and Sound Effects

Where the medium allows, music and sound effects can be used effectively to heighten interest. Besides offering a pleasant distraction from an unpleasant task, music and sound effects can improve the instructional effectiveness of a module. In a series of considerable length, music can recapture lagging attention, acting as a cue for a repeated segment or episode. Commenting on the use of music and sound effects in "Sesame Street", Gerald Lesser (1974) stated that music can be used as an aid to memorizing material in sequence. For instance, the alphabet is more easily sung than recited.

But music and sound effects must be used carefully, or the result can be detrimental to learning. They must be carefully inserted, making sure that they compliment visual movement. Choosing an audio track which reinforces the visual action requires a great deal of patience and skill.

Animate Materials

Animation is not always an appropriate production technique, but it can be used effectively in teaching children. Beyond its entertainment qualities for children, it can be used to create illogical surprise or magic. Any form can be made to grow, twist, burst, or fade, creating novel learning opportunities. Comedy is very easily adapted to animation, and its capacity for entertaining children is displayed every Saturday morning in homes everywhere, but a caution needs to be sounded. Developing an animated film is extremely time consuming and expensive, so unless you feel that Woody Woodpecker is essential to the production, another production technique might be more desirable.

Special Effects

One of the most trite, but nonetheless true, sayings in television and film production is, "special effects are just that - special." Special effects should not be over used, but can be used creatively to heighten the viewer's interest or emphasize an instructional point. Two special effects, slow motion and pixilation will be used to illustrate each of these possibilities. Slow motion allows the viewer to pick out details of visual information that appear too suddenly at regular speeds. In slow motion, a viewer is able to see the beautiful musculature of a jaguar as it runs, while this information is lost at normal speeds. Pixilation, on the

other hand, is used to remove information, and produces an amusing effect. Several frames of actors or objects are shot in each pose, and they move slightly from pose to pose through a sequence of action. When played back at fast speeds, this produces a choppy, exaggerated movement that is reminiscent of the Keystone Cops. This technique, used where appropriate could produce a humorous effect that could stimulate learner interest in a module.

Keep Language Simple

This is a good tip for the development of any type of instruction, but particularly self-instructional materials. Long words and elaborate sentence structure lead to confusion, frustration, and a loss of interest for the learner. Keeping language simple is particularly important in the visual media such as television and film. The learner does not have a printed page to review, and the information is presented at a fixed pace. For these reasons, the learner must be able to absorb the information as it is presented.

Personalize the Materials

The direct approach is the best approach. Address the learner as "you" in presentations. This will encourage the learner's active response to the materials, and increase his motivation to perform.

Write for Understanding

In your attempt to simplify media, avoid condescension. It is a serious mistake to underestimate a learner's level of understanding and one of the fastest ways to persuade a learner to "tune out". While it is good practice to simplify the language in a selfinstructional module, the topic should not be reduced to the point of making it trivial. A trivial topic will insult the learner, and reduce his motivation to take part in it. What high school senior would sit still for a video tape of "Mr. Roger's Neighborhood"? A learning task must be challenging in order to motivate a learner. An overly simple program, even one promising a high probability of success, will

not inspire interest in the student to participate in the learning situation.

Employ Humor

Learning does not have to be serious business. A light-hearted, humorous approach can be used to make a ponderous subject palatable. Popham (1971) cautioned the developer to carefully consider both the audience and the program content when employing humorous devices. While elementary school-aged children might enjoy an animated hippopotamus capsizing a rowboat in a module on "water safety", a group of lifeguards participating in in-service training would be less than amused.

Introduce Cross-Subject Adaptions

Models, analogies and terminology from another field can often be employed to spark interest in a module. An example drawn from the content area of religious education can illustrate this principle. The module, entitled "Persecution Polygraph", allows students to answer a series of questions concerning their willingness or reluctance to discuss their faith with others. Responses are plotted on a simulated polygraph read-out tape, and the pattern which results from the series of questions reveals to the student the amount of persecution he feels. The marriage of the two ingredients — religion and lie-detectors — at first appears ludicrous, but within the stated instructional context, provides a stimulating educational experience.

Other useful strategies do not have to be this elaborate. Decoder rings, with which students can reveal "hidden" messages are popular with elementary students. A model of an eye can be used to describe the function of a camera. The possibilities are endless, but the point is, find out what is available from other areas, and adapt outside ideas to satisfy your motivational needs.

Develop Suspense

This is another suggestion bor-

rowed from Popham. He suggests that the curiosity of the individual is a resource which can be cultivated by the developer. A thoughtprovoking question, raised at the beginning of the module, and referred to occasionally throughout instruction can sustain interest in the topic. Similarly, an unresolved dramatic situation can carry the interest of the learner for extended periods.

Employ Action Sequences

Instructional developers can learn a lesson from televised "chase scenes": action promotes interest. In the early days of instructional television, programs consisted of a teacher (talking head) and a blackboard; often the only movement being the teacher turning his head to clear his throat. These infamous programs were often so boring, that they competed with the noisy radiators in the classroom for the attention of the learners — sometimes losing. Substantial action can be used in self-instructional modules to sustain interest. While it is especially possible in motion formats such as film, videotape, and computerassisted instruction, it can also be imagined in written material, and implied by fixed-sequence, still pictures.

Use Previous Knowledge

Molenda (1976) indicated the importance of requiring the learner to use previously learned information in later frames of self-instruction. Later segments of instruction should permit the learner to reapply knowledge as an effective method of review. This method of reinforcement can employ any of the various schedules of reinforcement recommended by operant conditioning principles.

Involve Learner

Most gaming situations involve an element of competition. Games and problem solving are effective devices which can eliminate the other player(s), and allow the learner to compete against himself. These devices can be as intricate as an interaction exercise on a computer terminal, or as elementary as a crossword puzzle, but the essential idea remains. Games and problems can sustain a learners interest, and promote learning as well. An example of problem solving materials which can be adapted to several levels are electric boards. Electric boards usually consist of a list of questions and answers in a matching format. If the learner connects the question and correct answer with a pair of wires, a light turns on, a bell rings, or some other public display of reward is given.

Utilize Self-Construction

As developers, we often ignore the ingenuity, creativity, and energy of learners. Open-minded modules, which require the learner to complete a story, continue a sequence, or create a unit of instruction are not often developed, but requiring the learner to take an active part in the construction of his instruction is an effective method for promoting interest. Instructional television has used this technique in the "Inside/Out" series. Programs are brought to a point of climax, and abruptly ended, encouraging classroom discussion following the program. This could be adapted for self-instructional purposes. Following a presentation, the student could write a resolution to the problem presented in the program, or rewrite the program to make it more realistic. The opportunity to control instruction by devising a game to illustrate the lesson presented in the program might also motivate learners.

Incorporate Familiar References

Especially if new information is being taught, or new intellectual ground is being broken by the learner, familiar references can be used to make the learning task less threatening. Learners find new learning easier if familiar references are used.

Modeling Behavior

Modeling can include imitation of the behavior of a particular person, or more generally, learning by watching others. This is a powerful force that does not always affect the learner consciously. Many people became teachers because of a highly influential teacher of their own, and model their teaching behavior after that teacher's. If people generally learn by watching others, then the attempt should be made to show people working through learning tasks within selfinstructional materials. This technique lends itself readily to media with the capacity to depict motion, but can be used in "static" media as well. Written materials may include photographs or drawings which allow the learner to copy the movements in the photographs to reach a successful conclusion.

Use Shock or Surprise

The introduction of a surprising or incongruous element will capture the attention of the learner. Imagine an actor giving a lengthy monologue on the topic of ocean currents. Just before you nod off to sleep, the speaker is slapped in the face with a six-foot wave. He then proceeds with the lecture as if nothing happened. Attention would probably be recaptured. Of course, care must be taken not to distract the learner from the topic permanently.

Manipulate Contextual Elements

Molenda (1976) suggested several techniques for creating motivating contexts for selfinstructional materials. One such idea related to the use of shock or surprise is employing unusual contexts. Molenda suggested placing information in a bizzare or incongrous context to stimulate interest. Humor can be effectively used with this strategy to stimulate the learner.

Molenda further emphasized the importance of placing information in a "real world" situation. Learners will be more interested in material which incorporates situations which may be actually encountered. An example of this strategy is being used in a remedial reading program for urban blacks. "Bridge" uses street slang and situations in their materials to teach reading. This program has received criticism from strict behaviorists, because they believe that this reinforces inappropriate behavior, but Houghton Mifflin insists that it works.

Choosing contexts which exploit the interests and aspirations

of the audience can pay high learning dividends. If your audience is made up of law students, placing them in the role of a supreme court judge or clever defense lawyer can enhance interest.

Current social or political issues can also be used as effective motivating contexts. Commercial television has become highly sensitive to the interests of the general viewing public. One successful situation comedy will spawn several spin-offs, and the popularity of a series such as "Roots" sparks interest in family origins. A successful context should be exploited by instructional developers.

Anticipate Events

By deliberately manipulating a student's anticipation of events, the developer can promote mental rehearsal of these events. This can be easily done by repeating a complex learning task. In biology, each of the necessary steps for creating a bacterial culture in a petrie dish can be presented. Repeating the sequence causes the learner to anticipate each of the upcoming steps before they occur. This promotes learner activity and interest.

Directing Interest

In order to motivate students to learn, a self-instructional module must be effective as well as interesting. Instruction must lead the learner to a specified goal or outcome. A number of strategies for accomplishing this are offered below. The list is not exhaustive, but should provide several starting points for the developer.

Provide Objectives

Every educator has been confronted with the concept of behavioral objectives at some time during his professional education. Several excellent texts are available on the topic and should be consulted by developers. Specifying the objectives of an instructional module is an important step in ensuring the effectiveness of the instruction. Objectives give the learner a sense of direction and purpose that might otherwise be missing.

This is not meant as an argu-

ment for strictly behavioral objectives, however. While these are most useful for evaluating outcomes, general statements concerning feelings, appreciation, and emotions also have their place. Objectives ideally cover the cognitive, affective, and psychomotor domains of learning, and specify the intended audience, specific behavior, conditions, and achievement standards. But where this is awkward or impossible, a general statement of desired outcomes is still useful.

Reinforce Appropriate Behavior

Contingencies of reinforcement can be applied to make instruction more effective. The developer should provide instances for the learner to practice applying learned information. This can be accomplished by using inserted or grouped post-questions. In the presence of a correct response or appropriate behavior, rewards can be aiven to strengthen the stimulus-response bond. This can be accomplished according to an intricate schedule of reinforcement, or randomly throughout the instruction, but the important thing is to deliberately reward appropriate behavior in some manner. A verbal or written pat on the back may be sufficient, or you may want to provide badges, certificates, or other tangible rewards, depending upon your audience.

Employ Repetition

The reappearance of information, format, or characters will stimulate interest and enhance learning. Many developers fear the over-use of repetition, anticipating cries of "Redundancy-Redundancy!" Repetition should be encouraged in the development of self-instructional modules, however. Repetition can act as an extension of reinforcement, as it allows the learner to practice desired activities.

Use Indirect Teaching

Not everything that is learned from an instructional module is associated with its instructional content. Situations can be presented which teach in the affective domain. Attitudes such as love, tolerance, and patience can be influenced by the context of the learning situation. As developers of self-instructional modules, be aware of the incidental information being presented, and exploit it.

Narrow the Focus

The objective is to eliminate irrelevancies, or "noise", from the content of instruction. Anything which interferes with the intended message should be taken out of the module. Irrevelant details will confuse the learner. The idea of narrowing the focus should be contrasted with the strategy of using indirect teaching devices. Indirect teaching devices are employed to present incidental information (information other than the central component), but information which is not distracting to the learner. Narrowing the focus of the instruction refers to the elimination of incidental information which may interfere with learning.

There is sometimes a trade off between making a module interesting and making it "lean", though. If an interesting method cannot be found to teach the material which is consistent with learning objectives, it may be desirable to find a distracting, but entertaining method of presentation. It may be more effective to sacrifice some instructional integrity rather than lose potential learners to the clutches of boredom.

Offer Follow-Up Activities

Why not? Hundreds of hours have probably been devoted to making the self-instructional module both effective and interesting by this time. If the learner has been truly motivated by the material, his desire to explore the subject will reach beyond the boundaries of the module. Outlets for that energy should be provided, and the module is an ideal medium for directing student interests to the proper outlets.

Summary

This investigation has attempted to present a list of strategies for making self-instructional materials more interesting or motivating. Several of the strategies are restricted to specific media, but a number of these suggestions can be combined to motivate the learner.

Two themes seem to pervade the list: add variety, and avoid distracting the learner from the intended instruction. Variety is most important for capturing and sustaining interest. Anything, done over and over, will eventually become boring, and by incorporating several strategies, boredom can be avoided. However, any of these strategies, misused or over-used, can serve to distract the learner, and impair learning. Care must be taken by the developer to judiciously apply artificial motivating strategies to instructional materials.

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Kenneth Bowers

In the previous President's Message, I included AMTEC 79, AMTEC 80, and future AMTEC conventions among comments on one of two major AMTEC activities. The other major AMTEC undertaking is the publications program. Regular publications of AMTEC include the *Media Message* and the *Newsletter*. All members of AMTEC are encouraged — even urged to participate in the *Media Message* and *Newsletter*.

The Board of Directors of AMTEC includes the editor of *Media Message*, Dr. Richard F. Lewis, who is on the staff of the Atlantic Institute of Education in Halifax, Nova Scotia. Patricia A. Dolan Lewis, Richard's wife, the managing editor has journalism experience, and so AMTEC profits by having a team as its editorial staff.

Richard is interested in making both the *Newsletter* and *Media Message* a more significant, meaningful, valuable form of service to the membership of AMTEC. He and the Board of Directors realize that the regular publications of the organization are the major return many members have for their membership in the association.

Dr. Richard Lewis is responsible, in a major way, for the quality of the publications sponsored by AMTEC. In another sense, the quality of these publications depends significantly on the members themselves. In other words, if you think the Newsletter and Media Message are lacking, do something by way of improving it. If you think the publications are excellent, contribute your best ideas in the way of articles, essays, open letters, or other literary forms to continue its high quality, relevance, and value to the professionals in the media field.

It is a source of satisfaction to all of us to see the *Media Message* quoted in other publications. In my experience, the most recent example of such quotation was in the National Film Board's Equipment Laboratory Newsletter, No. 5 September, 1979. We find that Larry Burt's excellent article on the Opaque Projector is referred to, as well as an article by A.J. Powell of McGill University, which is reprinted extensively. Such references give our publications wide recognition and should encourage each of us to contribute our best writings. since we can be sure someone is reading what we write. I hope that now and in the future, Media Message will be regarded as the most important media publication in Canada, and that it will hold its own as a significant publication on the continent.

The importance and significance of the AMTEC publications brings to mind another factor relevant to this matter. To carry out a significant publication program is expensive. At its deliberations in Toronto in October, 1979, the AMTEC Board of Directors discovered that the cost of publishing Media Message and the Newsletter, including postage, costs more per member than the fee collected for annual membership. This may be justifiable under some circumstances, but it places the publications'program on a risky foundation and could be disastrous if a convention in the future does not make a profit.

The Board of Directors has decided to try to keep the organization on firmer ground in two ways. First, in line with increases in all areas of business and professional life in Canada, the annual fees of AMTEC are to be raised, effective January 1, 1980. The raise is to be quite modest, considering cost of living statistics. New memberships will be \$30 for individuals, \$10 for students. The new Institutional rate will be \$50, with Commercial/Organizational membership remaining at \$100. It is hoped that with the continuing and increasing significance of Media Message and Newsletter, together with the importance of the AMTEC conferences, the AMTEC membership will be one of the "best buys" professionally available to media people in Canada — or in North America.

The second direction taken by the Board in an effort to improve AMTEC finances is to try to organize some of the members in various localities to improve the scope and quantity of advertising in the publications. All of us may assist in this regard too. We should refer to advertisements we see in *Media Message*, and let suppliers know that we appreciate their support and read the information when they advertise in *Media Message*.

Of course the Media Message and Newsletter publications and the conference are not the only benefits of membership in AMTEC, although these two undertakings have the most visibility. Various other organizational activities one can cite occasional publications also. Resource Service for Canadian Schools, sponsored jointly with the Canadian School Library Association is an example. Others include the AMTEC Communications Directory edited by Gerry Brown and Courses in Educational Technology edited by Joe Barre.

The benefits associated with the establishment and encouragement of special interest groups within the AMTEC framework have been important to some members.

Organizational input on governmental issues such as import duties on AV and TV equipment for educational use, and the thorny matter of copyright have been and continue to be areas where AMTEC has represented the profession and will attempt to do so in the future.

If you have suggestions of other ways AMTEC could effectively serve its members, write or telephone me or any other board member.



Richard F. Lewis

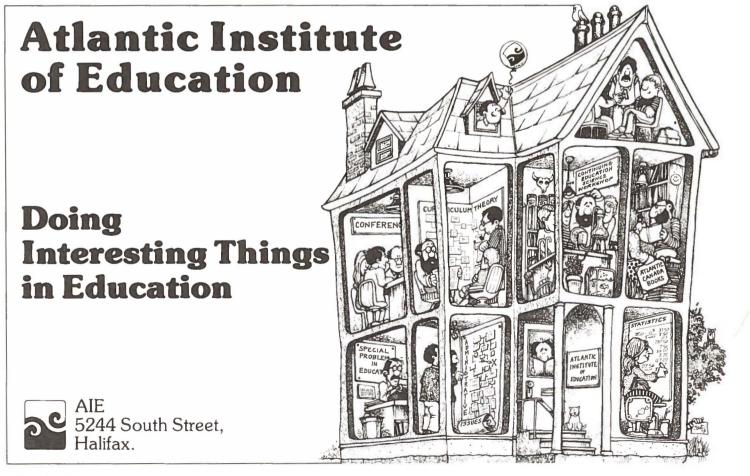
Declining enrollment in public school and secondary education will be with us throughout the 1980s. Smaller numbers of students causing changes in teacher deployment, resource utilization and curriculum practices will also have an impact on the field of educational communications and technology.

Mediated materials can help the problem of declining enrollments in several ways. In rural schools or even in urban centres, classes are even now being doubled up with two grades being taught by one teacher. Individualized instructional materials incorporating media may well be used to supplement instruction and in some cases serve as direct instruction. Likewise, televised materials such as those produced by ACCESS Alberta and the Ontario Educational Communications Authority could be used for direct instruction. Audio-tutorial and other techniques can also be of assistance in coping with students at many levels in the classroom.

Declining enrollment will also cause some over-supply in the teaching force. Already in some boards, teachers are being released from teaching to perform other tasks. In some cases, teachers have begun producing educational materials, both print and non-print. This trend provides another opportunity to improve student learning through the use of wide ranges of technology and methods. However, the teachers who are released must have the training to properly produce materials. Experts in our fields as well as curriculum specialists will have to ensure that curriculum and instructional development tasks are performed by teachers who have been trained for the task at hand.

Declining enrollment also could pose a serious threat to media programs in schools. It is not inconceivable that boards will trim educational spending by cutting back on so-called frills while retaining only the basics. Unfortunately, many media programs are viewed by teacher and administrators as frills, subject to early budget cuts.

AMTEC must respond to the challenge of declining enrollment. The membership must begin to find out what events are now happening as a result of enrollment decline. We must also predict and prepare for actions that are contemplated. Finally, we must continue to prove and demonstrate the use and value of using a wide range of learning resources and techniques in education. These are the challenges. Are we ready to respond by directing our research and student theses work to this topic.



Special Interest Group-Media Instructors

Coordinated by Clayton R. Wright

The aims of this section in *Media Message* are to exchange information on basic media courses and to improve the quality of teacher training in media use.

Anything of interest to media instructors should be submitted to:

Clayton R. Wright Education North, B-125 University of Alberta Edmonton, Alberta, T6G 2G5 403-432-4922

I wish to thank those of you who promptly returned the Media Instructor's Survey I. The information gathered in the survey will enable me to establish a media instructor's resource file. A copy of this file will be distributed to the members of our group when all of the forms have been received.

One of the preliminary findings of this survey is that the following texts appear to be widely used in the basic media course:

- Brown, J.W., Lewis, R.B. and Harcleroad, F.F. AV instruction: technology, media and methods (5th. edition), New York: McGraw-Hill, 1977.
- Kemp. Jerrold. E. *Planning and producing audiovisual materials* (3rd. edition), New York: Thomas Y. Crowell Company, 1975.
- Wittich, W.A. and Schuller, C.F. Instructional technology its nature and use (6th. edition), New York: Harper and Row, 1979

Ducks Unlimited (Canada) was established as a private, non-profit, conservation organization in 1937. Some of their films have won international awards for their coverage of a variety of topics including conservation, migration, hunting and restoration in waterfowl habitat.

The 16mm movies are available free of charge from distribution centers in: Kamloops, B.C., Edmonton, Alta., Regina, Sask., Winnipeg, Man., Aurora, Ont. and Amherst, N.S.

For more information please write to:

Patricia Knipe Information Officer Ducks Unlimited (Canada) 1190 Waverley Street Winnipeg, Manitoba R3T 2E2 204-474-1476

Once more winter is upon us, but we continue to use the same photo course outlines and place the same emphasis on picture taking that we do in the warm, balmy days of summer. Perhaps in some parts of the country, such as Vancouver, where "summer thrives all year", one can get along with the same instructions. However, in places like Edmonton where temperatures may reach a high of -25 to -30 °C for a two or three week stretch, certain procedures must be stressed before a student ventures out into the cold to complete his/her assignments. A few of these seasonal items are listed below.

1. Neck straps should be attached to the camera and around the student's neck at all times unless one is using a tripod. Snow inside a camera can obviously do as much damage as rain in the spring.

2. If tripods are being used, ball and socket heads are much easier to manipulate in the cold — as a matter of fact they are in any weather.

3. Students should be warned to carry as little equipment as possible. This will better enable them to keep the camera and lenses warm at all times. Besides, who with numb fingers will be able to change lenses with any ease? If possible, try to restrict the students to the use of one lens.

4. Warm clothing is a must, not only for the obvious reasons, but because when the body is cold the mind tends to overlook photographic possibilities in the attempt to finish the project quickly. Hastily made photographs should be discouraged.

5. If students wear thin gloves inside mittens, they can give their fingers maximum warmth while walking around. When it is time to manipulate the camera, the mittens can be removed and the fingers will still be protected by the gloves.

6. Before students head out into the cold, they should be warned that as the temperature drops below freezing, the moving parts of the lenses may become sluggish. Lubricants normally used in lenses stiffen up, therefore more force is needed to turn the focussing ring. Two solutions exist for this problem: a) keep the camera inside the outer clothing at all times so that it is warm until it is time to shoot; and/or b) replace the normal lubricant with an all-weather type such as one containing silicone and Teflon. (This latter lubricant can be used in cameras as well.) Obviously, it is cheaper to employ method a.

7. With the increasing use of electronic circuits in cameras, there is a greater reliance on batteries. In cold weather, two batteries should be taken, one in the camera and the other close to body heat. When one battery appears to fade, usually between one and a half and two and a half hours, change battery location.

8. In order to prevent the formation of potentially damaging condensation in the camera on returning indoors, cameras should be exposed to the cold for the least time possible.

9. In cold temperatures film becomes brittle. To avoid breakage students should gently advance and rewind the film.

10. Static charge may build up inside the camera during the low humidity often associated with cold weather. It is therefore advisable to advance and rewind film slowly. However, don't forget to explain that under certain circumstances random static sparks could add a new dimension to their 'arty' photographs.

11. Film sensitivity will also be affected by the cold. An image on film depends on a chemical reaction occuring. The colder it is, the slower the reaction will be. When photographing below -15°C it is always wise to open up from a quarter to a half a stop depending on the type of film. I know some photographers who feel that bracketing indicates a lack of expertise with light reading abilities, however, in really cold weather I would prefer to bracket and make sure that I got the shot. It can be very disappointing to spend all of the effort needed to do winter photography only to find that every shot is underexposed.

12. If students are using reflective light meters, remind them of the affect that large expanses of snow can have on the reading. They may have to open up to a maximum of three stops.

13. Since winter photography normally involves removing a camera from a dark place (i.e. an overcoat) to the bright snowy environment, rushed meter readings may be inaccurate. Gallium and silicon photo cells respond more quickly to changes in light intensity than do CdS cells. It usually takes a CdS cell 30 to 45 seconds to adapt to extremes in light intensity.

To suggest eliminating or reducing outdoor photography during cold weather, in my mind, is a poor alternative. The winter world offers many photographic possibilities newly formed ice over a puddle, the wind blown snow...the possibilities are endless. A photographic eye should not be restricted by the height of mercury in a thermometer.

The organization of the AMTEC '80 conference is now in full-swing. Two sessions presented by members of our Special Interest Group will definitely be worth attending.

Ed Crisp from the University of Western Ontario will be conducting a session entitled "Introducing a CAI Experience into the Auto-Tutorial Component of an Existing Basic Media Course Using Microcomputers". He will be using PET microcomputer to illustrate his presentation.

Dr. James LaFollette from the University of Alberta will be presenting the following topic: "Innovative Approaches to the Undergraduate Media Program". His presentation will summarize his recent and extensive investigation of undergraduate media programs in North America.

Film/video A tool for non-verbal communication

Bernie Dichek

Film is a non-verbal language that has a grammar of its own. If a shot or image of Mary running from left to right across the screen is displaced by a shot of John running from right to left, the viewer is led to anticipate that Mary and John are about to meet. And indeed in the succeeding shot they very likely will. Similarly, if in both shots John and Mary are running in the same screen direction, then the viewer infers: John is chasing after Mary.

The viewing audience is seldom conscious of the actual mechanics of film language, since the language has been absorbed unconsciously. However, the moment a viewer becomes a producer of film or video images, he/she must learn how visual and sound images are constructed and manipulated in order to communicate.

Film language is both a convention-coded and an open-ended communication form. Meaning is achieved by utilizing forms familiar to people. However, on-going innovation in the use of forms is the hallmark of the film medium and an inventive technique will in itself express a point.

The editing process is often the most creative stage. Through the selection, ordering, and lengthening or shortening of shots, the film reality is constructed. An interesting exercise is to provide several people with the same rushes (unedited material). Each person will edit the material in a different way and often the results will convey completely different information. Film is a gregarious medium. Although it is possible for a single individual to operate the camera, most productions involve a group experience with interplay among actors, camera operator, sound recordist, director, etc. Of all the artistic forms, film is the best suited for expression as a group activity.

Video workshops are often conducted with emphasis on the technical operation of the equipment. The unfortunate result is the use of distracting gimmicks, an undue concern with "doing things the right way", or, at the other extreme, mere wide-shot surveillance of an activity. Instead participants require instruction in basic visual phrasemaking. This allows the participants to potentially produce something that is both creative in the making as well as appealing in the viewing.

Video language is identical to film language in terms of comprehension by the viewer. For use in a workshop setting, videotape is preferable to 16mm or 8mm film, because videotape may be played back immediately after recording or even monitored on a T.V. set during recordings. Videotape is also relatively inexpensive as tapes may be erased and reused.

Below is an outline for a communication oriented video program. Although the number of workshops in the program need not be limited, a minimum of four sessions is required. Apart from the value of developing skills of nonverbal expression, a spin-off value of these sessions would be that participants will gain an insight into television that will, in many cases, make them less passive and more critical viewers.

Session 1

Introduction to film literacy; viewing exercises; demonstration of visual and sound techniques.

Session 2

Hands-on equipment exercises

Session 3

Individual/group productions

Session 4

Playback of tapes. Group discussion. Feedback.

Additional Sessions

New aspects of film language are studied and new projects are produced.

Workshop In-Depth

In the following paragraphs a more comprehensive description of the workshop is given. The equipment required to facilitate these workshops includes a video tape recorder — T.V. monitor unit with a pause/freeze frame mode; and a portable video camera that can be monitored on the T.V. screen when in the record mode.

Also required is a demonstration video tape which includes T.V. program extracts. T.V. commercials are often a particularly rich source.

1. Film Literacy

Demonstration of basic visual and sound codes using T.V. program extracts, e.g. A Woman Recalls an Event in the Past. This information is conveyed without the use of dialogue through the use of a dissolve, camera movement, change in costume, and music. Discuss how audiences respond to non-verbal codes.

What is it like seeing a film for the very first time?

"On seeing Charlie Chaplin's 'The Tramp', the African audience concluded... when the camera shifts, they think they see trees moving, and buildings growing or shrinking...". (M. McLuhan, *Understanding Media*). Discuss.

2. How do films work?

Demonstration and discussion: persistence of vision; scanning the screen versus focusing; seeing in perspective; suspension of disbelief.

How are films made?

Explanation of stages involved: idea — script — production editing — viewing. Illustration: T.V. program credits: explain the relation between each title and stage of production.

Units of Film Language?

Definition and demonstration of terms: frame, shot, sequence, scene.

3. Visual Codes of Screen Direction

A discussion between two workshop participants is videotaped and played back. The camera is positioned to demonstrate the rule of the 180° axis.

Who is the Camera?

A discussion between two people is videotaped as above. The camera position demonstrates alternately the subjective point of view (the camera takes the position of one of the characters) and the objective point of view (the camera is positioned neutrally and observes both characters). Why is point of view important?

For example, a T.V. commercial in which the point of view is switched to the subjective (for impact) in the shot that presents the product, or an extract from a T.V. program showing how the point of view is switched at a point of violence.

4. Codes of Camera Technique

Demonstration of camera movements, compositions, lenses, angles, and lighting using a live camera as well as T.V. program extracts.

Codes of Editing?

Demonstration: overlapping aćtion, smooth and jump cuts, repeated motion, insert editing, pacing and rhythm, parallel action, accelerando, suspense. Illustration; the Kuleshov experiment. Exercise: A series of unedited shots are presented; each participant suggest an edited order.

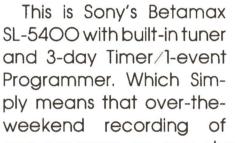
Codes of Sound Editing?

Demonstration: soundtracks: dialogue, voice-over, special effects, loops, music. Exercise: each participant is given the opportunity to match a visual sequence with music of their own choice.

This four session workshop can, of course, be expanded or contracted to fit the needs of participants. Additional sessions for viewing student tapes, group discussion and considering new aspects of film language may be considered.

Bernie Dichek is a Development Officer at the University of Calgary.

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Strategies for integrating technology in education

AWALYZATION OF INPUT DATA, (X=MATERIALS, Y=LEARNING RESOURCES, Z=LOCATION, A=)CURRICULUM PLAINING INPUT) (AND INTEGRATION OF FACTORS STORED IN TAPE 21 "STRATEGIES FOR INTEGRATING TECHNOLOGY IN EDUCATION" INDICATE:

CONCLUSION:

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YOUR SCHOOL SYSTEM CANNOT BENEFIT, ON A COST EFFECTIVE BASIS, FROM THIS RECENTLY PURCHASED COMPUTOR.

Phil Schalm

Procrustes, which translates as "the stretcher" was a monster who lived in an isolated area of Attica. His real name was Damastes, but the nickname which he earned stayed with him. On occasion, travellers found themselves at his door seeking shelter from the elements or lodging for the night. Anyone who knocked was welcome, was treated respectfully, fed sumptiously, and was eventually shown to an ornate and cunningly contrived bed.

In the night time when the guest was sleeping, Procrustes, the stretcher, would enter the bed chamber, and adjust the sleeper in order that he fit the bed. If the guest were longer than the bed, a portion of his legs would be cut off. If he were shorter, Procrustes would stretch him to match the length of the bed.

Mythology Applied

It is likely that each of us has seen a decision-maker, a Procrustes, implement a new technology while claiming to be meeting an educational need.

A typical example was the adoption of the technology of openspace classrooms. In order to rectify a particular mode of pupil and teacher organization, school construction programs grabbed the technology of continuous pupil progress and team teaching; the result was open-space classrooms. Many teachers created imaginary walls, and then brought in movable room dividers. There was the subsequent compromise of folding walls, and the eventual installation of fixed, sound-proofed walls. The technology somehow failed to meet what had been called an educational need.

Needs or Desires?

That term educational need can be very handy, because at a symbolic level it carries everything that is essential to make today's children and youth into tomorrow's backbone of the nation. Teachers lay it on principals, who lay it on superintendents, and so up the line to the general public who sometimes lay it back on the teacher.

When in the role of decisionmaker, however, one must try to be very careful about the term educational need, because educational needs are substantively the desires or preoccupations of special interest groups. These interest groups consist of professional educators and public figures, but on occasion such representatives as news editors, gymnasium-floor salesmen and communications engineers join in.

I am not suggesting that educational innovations are useless; I am simply suggesting that when we are selling an educational innovation, it can be effectively packaged as the answer to an educational need; but in trying to reach a decision, it is seldom helpful to think in terms of educational needs.

For example, in the early 70's the Saskatchewan Department of Education was convinced that schools needed to use more television in order to make instruction relevant and effective. We offered to reimburse each school board for the cost of one or more videocassette playback units, depending on pupil enrolment. Several hundred thousand dollars were spent. Some of the machines were put into use immediately; others were still in their packing cases four years later. We had created a need in order to justify purchase of some technology; the "technological imperative" had asserted itself.

Distance Learning

In a more recent example, the federal Department of Communications leased two channels on the Anik B satellite. Department of Communications engineers sought out provincial educational authorities and offered interim "free" use of the satellite channels for experimental distance learning projects that would prove the technology. Happily enough, some educational needs emerged and several projects are on line, in another apparent assertion of the technological imperative.

The technology itself does not have to be tested. In simple,

(perhaps simplistic) terms, enough work has been done with satellites or cable systems for humans to know how to install them, feed them and receive from them. Surely, as educators confronted with new technologies, our first question should not be, "Can I find a need which this technology can meet?" That question assumes that the technology is inherently "good" and must be used. Instead, the question is, "How can my instructional services be improved."

Apply Principles

In order to deal with that question, I suggest four principles derived fom *Resource Services for Canadian Schools*:

- Materials, facilities and services of the classroom, building and school division level must be responsive to teachers, students and the instructional program.
- 2. Learning resource services, at their various levels and in their various modes and formats, must be integrated to operate as a unit.
- 3. The most accessible location of resource materials is at the building level, with resource services co-ordinated or provided by a teacher-librarian.
- 4. The power of resource services derives largely from significant participation by classroom teachers and teacher-librarians in curriculum planning and implementation.

The key words in these four principles are *responsive*, *integrated*, *accessible*, and *participatory*.

Decision Making

Let me assume that you are a school superintendent under pressure to activate the educational channel in your local cable television system. How can these principles assist you in decision making?

First of all, recognize that a decision to use cable as a means of delivering instructional services is a long term commitment of funds — for the hardware needed to send and receive information and for the software, the programming which is to be delivered. In this case, it seems reasonable that you initially commit some funds to an assessment of the present delivery and utilization of resource services, and to the development of a strategy for the continuing development of services.

Stage One

This assessment has two components. The first is a description of instructional resource services provided in and to schools in your jurisdiction, under the headings:

- 1. Staffing
- 2. Materials and equipment
- 3. Facilities
- 4. In-school patterns of utilization

Such a description will enable you to identify the elements of your resource services which require the most attention.

For example, do your classroom teachers have access to a teacherlibrarian in planning and delivering instructional programs? If so, do productive relationships exist?

Is sufficient and appropriate print and audio-visual material available to teachers to enable them to use a multi-media teaching mode? If so, do they in fact use this mode?

Are school plant facilities designed to encourage student and teacher use of resource services? Are the facilities utilized? If the answers to questions like these are no, you are not likely to strengthen your instructional program by adding an educational channel to your local cable television system.

Stage Two

However, if the answers are generally affirmative, you might go on to the second stage of your resource services assessment. Here you are concerned with describing how educational cable fits into your short and long-range plans. I emphasize that it is not a matter of revising your plans to fit this delivery system, but, rather, it is a matter of determining whether or not this delivery system fits into your plans. This component of your assessment might include a description of:

- 1. Existing policies and plans.
- 2. Teachers' and administrators' expectations.
- 3. Funding.

Here are some questions which you might wish to have answered. In your short and long-range plans, what priority is assigned to maintaining existing resource services? To strengthening and expanding them?

How do teachers and administrators rank the elements of existing resource services? Where do they think budget should be assigned? What expectations do they hold for an educational cable delivery system?

Are there cost centres in your system which can be deleted, cut back, or streamlined to release funds for new or expanded resource services? Or, do your longrange projections indicate that additional revenue will be available?

In carrying out a system-wide assessment, you have several modes available. Your choice will depend on the ways in which you, the superintendent, wish to influence the answers.

The safest mode would be a questionnaire sent out under your letterhead. You can quite easily control the responses by the way you phrase the questions. For example, "Do you appreciate having a school resource centre, even though it means lower teachers' salaries?" You might even go a step further and personally pick up the completed questionnaire from each teacher.

Alternatively, you might assign the responsibility for the assessment to a central office staff member. However, the sort of study which is proposed does have elements which are potentially threatening to teachers and administrators; the added threat of central office might wipe out some facets of the activity.

You might opt to contract the assessment to someone from outside your system, although this would require an extended orientation period to familiarize the as-

ENTERING THE EIGHTIES

EDMONTON, ALBERTA JUNE 15-18

Tentative Schedule:

Sunday, June 15

	8:00 a.m. to 4:00 p.m.	Registration at Hotel MacDonald
	5:00 p.m.	Bell and Howell Opening Reception
	Monday, June	16
	8:30 a.m.	Welcome to delegates by Conference Chairman and opening remarks
	9:00 a.m. to 10:30 a.m.	Hon. David King, Alberta Minister of Education, speaking on the theme of Education in the '80's. and
		Dr. Geoffrey Hubbard, Council on Educational Technology, London, England
		Exhibits and Coffee
	11:00 a.m. to noon	Concurrent Sessions and Special Interest Groups
		Luncheon
	12:15 p.m. to 1:30 p.m.	Dr. S.N. Postlethwait, Purdue University, a pioneer in the development of the audio-tutorial approach to learning.
		Exhibits and Coffee
	3:00 p.m. to 4:00 p.m.	Concurrent Sessions, including sessions by Alberta Teachers Association Learning Resource Councils
		Social Evening at Fort Edmonton, reconstructed on the banks of the North Saskatchewan river. Enjoy a visit to John Rowand's "Big House", the clerk's quarters, the trading post, and the 1885 Street outside of the fort.
		The dinner will be sponsored by the Alberta Government, with Hon. David King, Minister of Education, as official host.
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sessor with your system and to build her credibility with your staff.

I suggest that you consider assigning the task to a wellestablished teacher in your system who has a strong teaching background, which includes an interest in and knowledge of resource services and resource utilization; who has the ability to work effectively with individuals and groups; and who has some research and writing skills. Technical knowledge of the various media



Tuesday, June 17

8:00 a.m.	Continental breakfast in Exhibits area	
9:00 a.m. to 10:30 a.m.	Session on the use of the videodisc in education, presented by personnel from Utah State University.	
	Exhibits and Coffee	
11:00 a.m.	Concurrent Sessions	
Noon to 1:00 p.m.	Luncheon — AMTEC business meeting — Presentation from Truro	
	Exhibits	
3:30 p.m. to 4:30 p.m.	Several concurrent sessions	
Evening	AMTEC AWARDS DINNER at Hotel MacDonald. Disco to follow.	
Wednesday, June 18		
9:00 a.m. to 10:30 a.m.	Concurrent sessions including a workshop on microcomputers.	
	Exhibits	
11:00 a.m. to noon	Concurrent sessions	
Noon	Luncheon — guest speaker to be announced	
2:00 p.m. to 3:00 p.m.	Alberta Teachers Association Learning Resource Council speaker and ATA business meeting, and AAECC business meeting. (Alberta Association Educational Cable Consortia.)	
4:00 p.m.	Plenary session — Catalyst Theatre Presentation — summing up the Conference in dramatic style	
Evening	Final Banquet — entertainment — Klondike Night	

would be an asset, but a far greater asset would be to have the confidence of personnel in your system. groups of teachers over perhaps a four-month period, your "assessor would undoubtedly also function as animator and consultant.

Selection of such a person would provide side benefits. In meeting with individuals and

Activation

Let us assume the assessment

is completed, and you have decided that activation of the educational cable channel supports your plans for resource services.

At your next meeting with your boards you have two choices: you can lie to them, and tell them that after their initial investment of, say, \$200,000 to wire the schools and set up a headend and buy monitors, it will be clear sailing.

Or, you can tell them the truth: acquiring and producing suitable programming will be the major cost of this innovation.

My purpose, however, is not to talk about costs, but about processes and structures for effective integration of new technologies into existing resource services. My personal orientation toward teacher participation in planning also extends into the implementation and operation stages. Committees of teachers from primary, intermediate, junior, and secondary levels can be established to be responsible for program identification, scheduling, evaluation, and utilization inservice activities, as well as the preparation of support materials. This would help to ensure that this service remains responsive to school programs and integrated with other resource services in the system.

In talking about an integrative approach to new technologies, I have used the example of the use of cable television as a means of delivering pre-packaged audiovisual materials to classrooms. But the one point which I have made applies equally to decisions made at any level about any technology, any innovation: the technological imperative is alive and well and living everywhere; 'our best defence is careful planning and informed decision-making focussed on our instructional goals. If a choice has to be made. our instructional programs must be the procrustean bed for our technologies, and not the converse.

Phil Schalm is an Associate Director of Instructional Resources for the Department of Education, Province of Saskatchewan.



How Much Land Does A Man Need

16mm color film. 14 minutes. Distributed by Marlin, 47 Lakeshore Drive, Mississauga, Ontario, L5G 1C9. \$250.

A traveller was looking for property. A landowner, for some unknown reason, was giving land away. Like a game, there were rules for the acquisition of the land. Whatever land could be circled and staked out between sunrise and sunset would belong to the traveller. It seemed too good to be true - free land! The traveller was taken to the area by boat on the evening preceding his pleasant task. At sunrise he began. By noon he was tired, but had completed his circle of the amount of land which he felt he needed. And then he looked toward the hills...the hills with their trees would be a lovely place to live. He hurriedly set out to incorporate the hill area into his bounty. There was so much more to be had! All too soon he noted that the sun was beginning to set. Frantically, he completed his encirclement. Exhausted, he finally realized exactly how much land a man needs — six feet from head to foot.

This film, the first by a young Manitoba filmmaker, is based on a short story by Leo Tolstoy. In true parable form, it is simple, direct and definitely didactic. The film has no dialogue, but a narrator is used to tell the story. The acting is decidedly exaggerated. Nonetheless, the film is excellent; its obviousness "works". In addition to being used in English classes, it is also applicable in Christian ethics, social studies and economics. While this film is most appropriate for high school audiences, it is elementary enough to be used with younger students and is suitable enough not to insult more adult viewers if they can adapt themselves to its heavyhandedness.

Kitkatla: A Community Involvement in Education

16mm color film. Distributed by Thomas Howe Associates, Suite 1 1226 Horner Street, Vancouver, B.C., V6B 2Y9. \$476.

Kitkatla, an isolated Tsimshian Indian community on the coast of British Columbia has developed its own unique educational program to replace the traditional provincial program which has little relevance for its children. The rationale of the program is that before children can begin to learn about others, they have to understand themselves and their environment. To accomplish this, interested members of the community, and those with specific skills and knowledge, work with the teachers to develop and teach the curriculum. They act as liaison people, bridging the gap between home and school. The basic skills are taught in conjunction with programs on the Tsimshian culture; lessons evolve from the environment and events in the village; and older students are expected to integrate their practical knowledge with the more academic knowledge of the teachers. The program is not static. School in Kitkatla is now a slightly more formal extension of the family and community educational structures. It creates in the student an understanding and appreciation of himself, others about him, and his environment, and fosters a desire for knowledge about life beyond Kitkatla.

While this film refers to only one community school, its information is applicable to all schools, especially those with high cultural minority enrolments. The film is directed at an adult audience, but could also be a useful and insightful supplement to high school social studies courses. While there are really no educational innovations in the Kitkatla system, it is exciting to see the combination and application of existing techniques in such a relevant manner. It's a positive direction in native education — a fertility pill as opposed to a bandaid!

I Heard the Owl Call My Name

16mm color film, 18 minutes. Distributed by Marlin, 47 Lakeshore Drive, Mississauga, Ontario, L5G 1C9. \$1450.

This film, based on the novel by Margaret Craven is predictable, sentimental and stereotyped — all of the things that usually destroy a film's credibility. However, *I Heard the Owl Call My Name*, is also so gentle and beautiful that one forgives its faults and is thoroughly enchanted. The photography is unpretentiously magnificent. Most of the actors, the actual inhabitants of the villages where the film was made, are exceedingly credible, so that the film is refreshing in its authenticity.

A young priest who, unknown to himself, is dying, is sent by his bishop to a remote Kwakiutl Indian village, ostensibly to minister to its needs. In reality, he is sent there to learn about life. When he dies, he is a richer person for having learned that white man's civilization is not the answer to all men's problems. Although he initially set out with the idea of helping the "backwards" Indians, he perhaps gained more from them than they from him.

The film, rich in native legends and customs, could be used equally well in English, Christian ethics and social studies courses, and would appeal to an older audience, perhaps, beginning at the grade nine level.

Shirley Murray is a teacher therapist at the Roy Wilson Centre, Sedley, Saskatchewan.

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