

Educational Materials

Crucial Element or Costly Charade?



Giant screen films and
supplementary educational
materials seem to go hand-in-hand.
But to what extent are they
actually being used?

BY KELLY GERMAIN



At the **GSTA 2002** International Conference and Trade Show in Toronto, Tracey Guiry, program director at the IMAX Theatre At-Bristol, and Kathy Sullivan, president and CEO at COSI Columbus, both members of GSTA's education and research committee, moderated the professional development session "Educational Materials: Crucial Element or Costly Charade?" In preparation for the session, they conducted a brief survey of GSTA member theaters asking three questions: Do you use educational materials provided with films? Do you produce your own materials? What use do you put them to?

Two-thirds of the theaters responding to the survey indicated they do use the educational materials provided. Of those, 82 percent of U.S. theaters and 50 percent of European theaters indicated they use the provided materials. All of the theaters outside of North America said they produce their own materials to supplement those provided, citing language translation and curriculum differences as the primary reasons for doing so.

While only 21 theaters responded to the questionnaire—11 U.S. theaters, six in the U.K., three in Europe, and one in Australia—the results do provide a starting point for dialogue on the effectiveness of educational materials as they are currently produced. "We didn't imagine that we were going to get definitive answers in one session," says Sullivan. "We really wanted to provoke a conversation and keep the topic moving."

Although much time and money is spent to develop and distribute the educational materials, discussion at the session revealed that we don't really know to what extent they are even being used in the classroom.

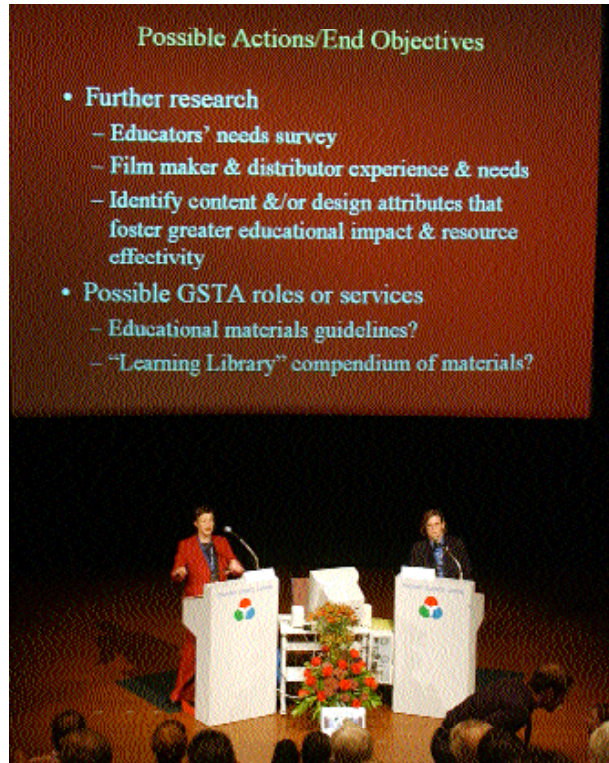
HISTORICAL PERSPECTIVE

It has become an industry standard that educational outreach materials will accompany an educational giant screen film release. But that hasn't always been the case.

With the release of *To Fly* in 1976, MacGillivray Freeman Films (MFF) distributed educational fact sheets to accompany the film—simple, typewritten documents that were photocopied and stapled—and a film discussion guide. For the 1989 release *To the Limit*, with assistance from the Museum Film Network, MFF produced a more polished teacher's guide and education resource guide, which was written by museum educators in the Museum Film Network. According to Lynne Kennedy, deputy

Possible Actions/End Objectives

- **Further research**
 - Educators' needs survey
 - Film maker & distributor experience & needs
 - Identify content &/or design attributes that foster greater educational impact & resource effectivity
- **Possible GSTA roles or services**
 - Educational materials guidelines?
 - "Learning Library" compendium of materials?



(Top) Tracey Guiry and Kathy Sullivan moderate the session on educational materials in Toronto.

(Above) Says Sullivan, "We really wanted to provoke a conversation and keep the topic moving."

executive director of education and exhibits at the Reuben H. Fleet Science Center, who has collaborated on educational materials for over a dozen giant screen films, "The film's production partners discussed how they would make the film more attractive to school groups and teachers. A group of people who were involved in the Museum



The educational package proposed in the NSF grant application for *Tropical Rainforest* was a significant factor in the film being awarded NSF funding.

Film Network sent their education experts to committee meetings to help put together a teacher guide, which was the first teacher guide that went with an IMAX film."

It wasn't until *Tropical Rainforest*, the 1992 release by the Science Museum of Minnesota and the first giant screen film funded by the U.S. National Science Foundation (NSF), that a complete educational outreach program was developed in conjunction with a giant screen film. Elements of the program included teacher packets featuring hands-on classroom activities and information on rain forests; a slide set of film images accompanied by a 19-page guide; a museum trunk packed with artifacts, activities and specimens with an operator's manual designed to introduce students to the rain forest; and a one-week educator institute for teachers and museum educators hosted before the film premiere.

The educational package proposed in the NSF grant application for *Tropical Rainforest* was a

significant factor in the film being awarded NSF funding, according to Hyman Field, senior advisor for public understanding of research at NSF. "Ancillary materials and educational outreach has always been among the criteria the NSF's Informal Science Education Program considers when it reviews proposals," says Field.

"Whether it's an exhibit, film or TV program," Field continues, "we expect the applicant to have planned, wherever it's appropriate, some sort of outreach. We're interested in the learning experience extending beyond just seeing a film or watching the television or walking through an exhibit. If there were two proposals we were looking at, and everything else being equal, and one had outreach and the other didn't, the one with substantive, well-designed outreach likely would receive funding. We're looking for a project that's carefully designed as a total educational experience."

The NSF and the giant screen industry have had a close relationship ever since—NSF has funded 21 giant screen films to date.

Today, educational materials are supplied in a variety of formats, including multi-page booklets, lobby kiosks, posters, web sites, CD-ROMs, and workshops during which museum educators are schooled firsthand so they can go back to their institutions with comprehensive knowledge about the film topic and create their own materials.

SERVING DUAL PURPOSES

Filmmakers and distributors seem unanimous in their conviction to produce accompanying educational materials. "It would be unthinkable nowadays," says Chris Palmer, president of National Wildlife Productions at the National Wildlife Federation (NWF), "to produce almost any film, especially films for the institutional market, without a teacher guide, a web site and all sorts of things that go with them. It's just such a vitally important part of the film. In some ways, it's as important as the film itself."

"Educational support is one of the first things theaters ask about," says Stacey Burton, marketing coordinator at Destination Cinema, Inc.

Supplementary educational materials serve at least two purposes. First, the materials extend the impact and educational experience of the film beyond the theater. "These companion materials can transform the large format experience into something much more meaningful than just seeing the film itself," says Palmer. "It turns the film into something which really can make a difference in the world. It's going to have a real impact on people's lives if they can see a film and then read a book or go to a web site."



MFF offers the program "Scientist on Tour," during which the scientists featured in its films visit institutions to speak to underserved students. "It enhances the film experience," says MFF director of marketing Alice Casbara, "and encourages a child to think, 'Hey, I can do this, too!,' which I think is a response we are all striving for."

Of course, the film itself must be inspirational and informational. "Is there an optimum balance to strike on what one expects the film itself to do in terms of education?" poses Sullivan. "Can one turn the collateral materials into too much of a crutch?"

Kennedy adds, "Unfortunately, I think that there's the notion if you do a teacher guide and just sort of add it on at the end, then everything's educational and they've covered that base."

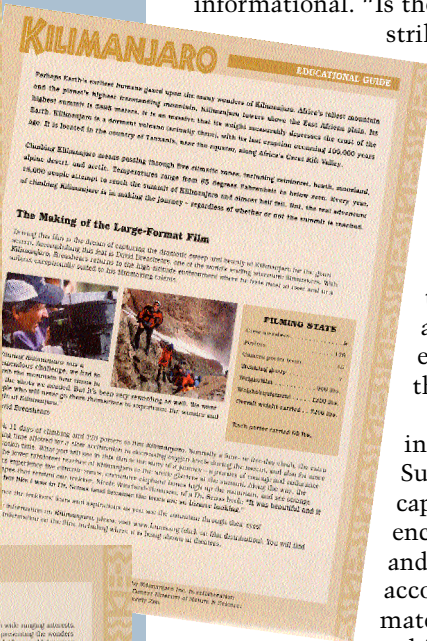
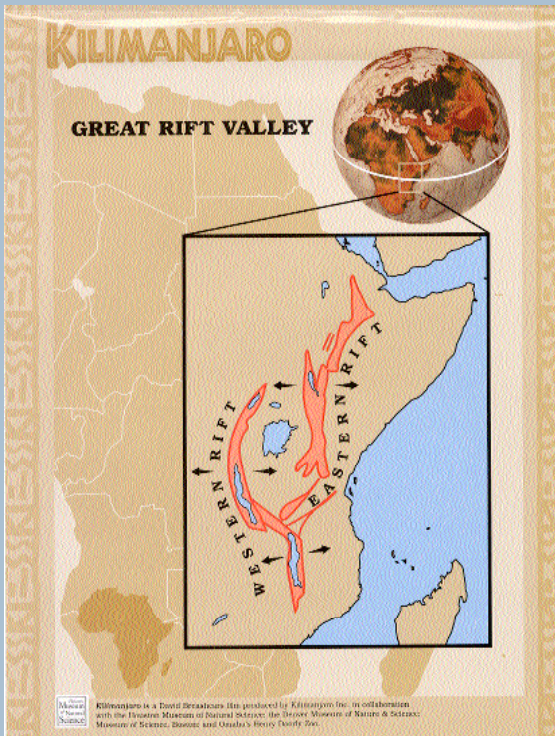
"If a film is truly inspirational," says Don Steele, Summerhays Films, "then it will capture their interest and encourage people to look further and delve into the subject. If this is accomplished, then educational materials can provide greater depth and further their interest."

The second purpose educational materials serve is to enhance the promotional package offered by the film distributor to the theater. A glossy, four-color guide presents an attractive calling card when soliciting school group bookings, as well as potential donors and sponsors.

Says Mark Katz, president of nWave Pictures Distribution, "It's a necessary part of doing business in large format to produce as comprehensive a marketing and educational support package as possible. Without it, the film just won't be promoted as well as it can be. Anybody who comes out with a film and doesn't do this is probably shortchanging themselves."

"One of the institutional theater's key markets is school groups," adds Burton. "As a distributor, our goal is to provide our clients with useful marketing materials that will help them have the most successful run possible. Also, institutions are looking for a well-presented piece they can bring to their board members when proposing a certain film to be shown."

"It's important to make the piece appealing to the general public, as an educational piece may be used for distribution at an educator conference or as a



The teacher's guide the Houston Museum of Natural Science produced for *Kilimanjaro: To the Roof of Africa* is a two-sided poster with pictures from the film on one side and activities on the other. The activity side is divided into eight panels, with a different, easily photocopied activity on each panel.

Educational materials extend the impact and educational experience of the film beyond the theater.





marketing tool for the group sales department to drive visitation to the theater," says Casbara.

What works best for marketing, however, may not be what works best for educators. "There are competing intentions, if you will, between 'why are we doing this' and 'why are we doing it the way we're doing it,'" Sullivan cautions. "It's driven by a combination of marketing production values and what might work for an elementary or middle school teacher. The handiest thing for them is often very simple and inexpensively copied material."

"Teachers want simple worksheets they can use without having to do too much to them," explains Alex Patrick, education officer at the Science Museum IMAX Cinema in London, "something simple and easily copied. Often, pages with photos on them are very difficult to read once they have been photocopied."

"Teachers want materials they can reproduce cheaply," adds Steele, "however, museums frequently like to have these materials in a little higher quality. Not that they'll use it in large quantities that way, but it's a nice thing to hand out. They like to have something that is bound, something that has some weight to it so when they bring teachers in and show them the film in a preview screening, they have something to say,

While the NWF has an infrastructure for producing companion educational materials, the materials are reviewed by theaters as well before they are distributed. Palmer says, "One thing I've learned over the last 10–15 years working in this industry is how important it is to work closely with the customer, in this case the exhibitors. It's very important when we produce a companion document to have theaters comment on it. We've found that enormously helpful and educational for us."

For *Amazing Journeys*, the Houston Museum of Natural Science (HMNS) contracted Journey North, an online site that tracks and publishes information about migrations, to adapt their educational materials and classroom poster for the film. "When we began preparations for producing *Kilimanjaro* and *Australia*," says Charlotte Brohi of HMNS, "we did a lot more research. We asked teachers what they wanted because we were convinced that theaters were not passing on the materials to teachers in a timely way, or they were too expensive to distribute, and that teachers did not have enough time to go over everything in the guides. Our own staff in the education department developed our next two guides with these things in mind."

nWave Pictures has worked with Youth Marketing International (YMI) for many years to develop

Educational materials enhance the promotional package offered by the film distributor to the theater.

'This is what it is and this is how it works.' Of course, having these materials in a higher quality is also valuable when used for local sponsorship development."

"They've become pretty fancy in production values," Sullivan says, "and my sense from anecdotal commentary at our session is that there is a combination of factors behind it. Teachers sure don't mind getting nice materials that just look intrinsically interesting and attractive to their students. It makes their job easier. But also, the producers clearly, to at least some degree, are producing one set of products that have both the glossy marketing value to show to prospective donors or sponsors, as well as appeal to the educational user audience."

There is no disputing that materials are developed with the best intentions. Numerous hours and thousands of dollars are spent in making the materials as useful to teachers as possible. If museum educators don't create the materials directly for a film, most distributors, at the very least, have educators review materials before they are produced, and the process has been fine-tuned over the years.

materials for its film releases. YMI has a nationwide team of educators reviewing all materials. "We add to that reviewers from within the educational ranks of theaters around the world," says Katz. "Our objective is to make these things as user friendly as possible for teachers."

THE GLOBAL AUDIENCE

The highest hurdle educational materials have to reach yet is their usefulness to international audiences. Exhibitors outside of the U.S. overwhelmingly agree that most materials provided focus on U.S. audiences and fall short of their needs. The most obvious problem is language translation—even English-speaking countries such as Canada and the United Kingdom need to edit materials for spelling differences.

Language differences are just part of the problem, however. Cultural references and curriculum differences are an obstacle as well. Sullivan says, "There is the recognition that educational materials produced by an American film production outfit and driven, therefore, around American English, American examples, American metaphors and



comparisons, and American educational methodologies and standards are of modest or no use to exhibitors and institutions in other countries.”

“The North American focus of educational materials is very strong and has always been an area of concern,” says Julie Brown, education group sales manager at the IMAX Theatre Sydney, Australia.

“The most pressing thing is the curriculum relevance,” says Patrick. “Things like the grade system don’t relate to us. We don’t know what that means.”

Because of this focus, theaters outside North

guide with a completely different layout, pictures and text. We do this in cooperation with several teachers. They get the English guide as a reference and then create a guide suited for Austrian schools, working closely with a graphic designer.”

Ivor Diosi of the IMAX Theatre Bratislava in the Slovak Republic says, “We use the artwork and most of the layout provided by the distributor. We translate it to Slovak and make adjustments to meet the official school curriculum. We conduct preliminary research with teachers and exclude text that is outside the curriculum. Changes are usually minimal, but this is the key.”

In a difficult economic climate, however, many theaters do not have the resources to implement revisions that will make the guides more relevant for their audiences. In the survey conducted prior to the professional development session in Toronto, those theaters that reported they do not produce their own materials cite cost as the main reason rather than lack of demand.

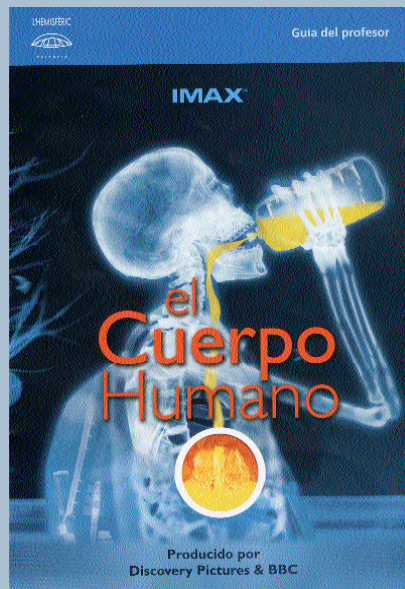
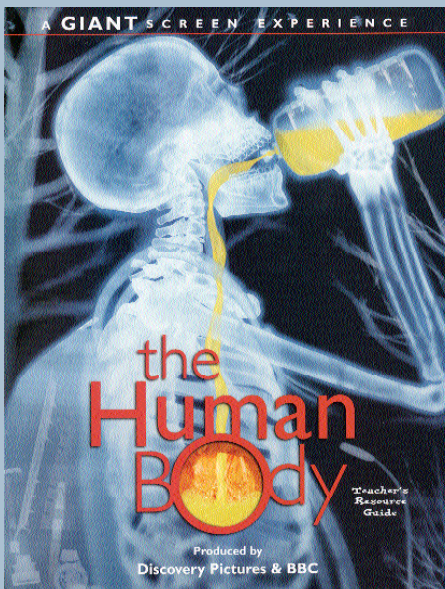
“A number of years ago,” says Brown, “the Sydney theater produced a companion set of teacher’s notes in addition to the official educator’s guide for every film released. Today, we do not have the time to produce a separate set of resources.”

The guides provided, however, do give theaters a tool as they try to maintain their status as a viable educational outing for school groups. “While the teacher’s guides may not always be entirely relevant to the Australian education scene,” Brown continues, “they do confirm IMAX as an educational resource in the minds of teachers.”

Distributors concede that more needs to be done to make the materials more valuable to a global audience. “It’s a huge challenge,” Palmer admits, “but we have to do that. As important as the American market is, the non-American market is very important, too.”

“We want the guides to be as international as possible,” says Katz. “And to me, therein, lies one of the biggest challenges right now with the educational material for large format films. How do we make them work for all markets worldwide?”

Ensuring the guides are effective in countries outside the U.S., however, poses an enormous challenge to film distributors. Not only do curriculum standards vary *between* countries, they



L'Hemisferic in Valencia, Spain, created its own Spanish version of the teacher's guide for *The Human Body*.

Ensuring the guides are effective in countries outside the U.S. poses an enormous challenge to film distributors.

America are often forced to either revise materials to fit their needs or create their own materials entirely.

“Bristol has never been able to use the pre-produced education packs as delivered,” says Guiry. “We always need to intercede at some point to interpret what we are sending [to teachers]. We ensure they know, for example, that the packs use the American spelling on words like meter/metre and color/colour and that the packs are not intended for the student or end user but more as idea factories for the teacher to use.”

Gottfried Lutz, marketing manager at LFC-Large Format Cinema in Austria says, “We use the English teacher guide only as a reference to create our own



sometimes vary *within* a country.

"It is important to note that within the U.K. there are differences," Guiry points out. "The curriculum in Scotland differs again, and so the Glasgow theater must produce its own tailored materials to fit Scotland's curriculum."

Getting input from theaters outside the U.S. before materials are produced is a step toward making them

us for input, in my opinion, have produced a better guide in the end. We've been given rough drafts of materials to give to teachers in the U.K., asked for their input, and then sent that information back to the people who are making the guide. There's a cost involved because we have to pay teachers to come in. And, obviously, it's more time consuming for the distributor, but, ultimately, I think it provides a guide that should be more useful in the long run in the U.K."

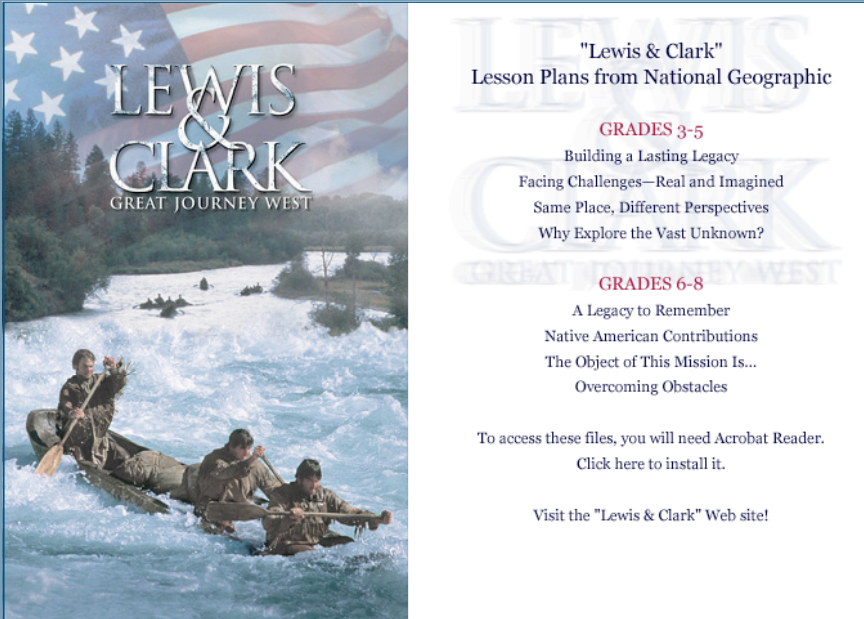
Technology may offer a solution as well. As technology evolves, so does the classroom. While most educational materials in the past consisted primarily of printed teacher guides, most films now offer companion web sites or CD-ROMs that provide information about the film, interactive educational exercises, links to additional resources and downloadable files.

"We try to provide everything electronically as well as in print," explains Katz. "Yes, it has to be translated, but the layout is there, and the structure is there. And if the theaters can translate it, then they can reproduce it."

"We're probably at a crossroad right now as to justifying the expense in printing," Katz continues. "So if I could save a few thousand dollars by not printing that I could spend on something like translation and still know that the guides reach as many if not more teachers, that would be ideal. I would love to move ultimately in that direction."

"Because we cater to an international client base," says Casbara, "we offer film materials in a format that is easily customizable for language translation purposes and to graphically tailor it to numerous uses. The teacher's guide is available in a printed format, on CD and downloadable on the web site."

Theaters agree that digital versions of educational materials do save them time and allow them the flexibility to customize the materials to their specific needs. "A web-based resource or CD-ROM would be very useful," comments Patrick. "Perhaps templates that we could use ourselves. Some of the guides are very complicated in their design. When we did surveys, we found that teachers often said that they would like CD-ROMs because then they can cut and paste what they like themselves. And presumably that would be cheaper as well."



Many distributors are making educational materials available via files that can be downloaded from the film's web site.

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more useful to a global audience. "I think the solution has got to be to develop a closer relationship with those theaters overseas," says Palmer, "and gain a better knowledge of what they want."

Many distributors have panels comprised of educators from different countries review drafts of the guides as they are being developed. "Given our limited resources, we are often prevented from simply going ahead and translating the guides into four or five or six languages," says Katz. "We do, however, include reviewers from different countries as often as we can. It's challenging because curriculums are obviously very different from country to country. But we hope that by making the effort, we're getting closer to it."

Patrick adds, "Some distributors who have asked



"An electronic file in a widely supported format such as Microsoft Word or Pagemaker would be ideal for theater use," says Brown. "That way, we can add relevant curriculum information just by cutting and pasting. We would then arrange for simple black and white copying of materials for teachers or convert to PDF ourselves and upload the files onto our own web sites. Increasingly, the cost of resources is becoming prohibitive, particularly when freight charges to Australia are added. The importance of the Internet will only increase."

Adds Burton, "As we were preparing our educational pieces for *Lewis & Clark*, we developed a survey to understand how teachers preferred receiving their materials. There was an overwhelming response to downloading from the Internet. In response, the *Lewis & Clark* educational materials, developed by National Geographic, were made available on their site."

Cost is a major factor in determining what distributors are able to provide to theaters outside of North America.

Digital technology does not provide a panacea for the classroom teacher, though. Sullivan points out, "Because most of us have a desktop computer and are on it all day, we presume it's easy. It's very easy to overestimate what you think should be the ease with which teachers can do this. Starting with time availability and down to the operating speed of the computer, it isn't always the case for teachers."

"The trick," says Guiry, "is to make sure that the use of the web fits into the teacher's busy day, i.e., no lengthy text to read on screen, which requires reams of paper to print out, and no dense images that can take some older systems ages to download. Teachers will use the web themselves during breaks between classes or whilst at home, so they need speed, brevity and ease of printing and photocopying."

As always, cost is a major factor in determining what distributors are able to provide to theaters outside North America. "Yes, there is an incremental cost versus providing to a North American theater," Katz acknowledges. "It's frustrating, and it's a challenge. We're already doing a lot, but we'd like to do more."

"Unfortunately, our budgets don't allow us to translate the materials to every language," says Casbara.

Perhaps theaters and distributors share in the responsibility to provide materials that are effective for specific audiences. "It's probably fairer to say that the theater is responsible for delivering the education materials, support, and offer staff back-up," says Guiry, "Yet it is the filmmakers' responsibility to

provide the content and materials that allow them to do that. By sending education materials, images and ideas, for example, on a CD-ROM, the filmmaker is aiding the theater to create their own branded information, which adds value to a film visit and improves both the educators' and the students' experience."

THE GREAT UNKNOWN

So while ancillary educational materials have become the industry standard, are the materials fulfilling their educational mission? Are teachers even using them? While educators know what teachers are looking for in an educational guide, no one knows for sure if teachers are actually using the guides once they are provided.

"We just don't have the resources to understand that comprehensively," Katz says, "but we obviously try to follow up with every theater and make sure

that they have the materials and they're using them. Judging by the reorder levels for our printed guides, we believe that they're getting very good usage."

"It's very difficult to say because I haven't got substantial evidence as to what's being used in the classroom," says Patrick.

"We poll theaters regularly to measure *their* use and perceived value of various outreach materials," says Casbara. "Following up with teachers is time-consuming and, therefore, costly, and as a film distributor we just cannot do it without the theaters also contributing time and effort. I don't know that anyone—producer, distributor or museum—has found an efficient, affordable way to do it, one that yields a significant response. But I think it would be worth the industry's time and effort to do some research in this area."

Guiry adds, "There hasn't been any formal research with the end users, which is one of the actions that the education and liaison committee of the GSTA took away with them. We have had enormous interest in this subject since it affects everyone in the business. A lot of theaters do their own research, have teacher panels and focus groups and conduct surveys of all teachers who book a show, so it's not that research isn't being done. I think with a little tweaking of theaters' current activity we can easily find out what the teachers actually think of the materials and gauge a more accurate opinion of the ways they use them."

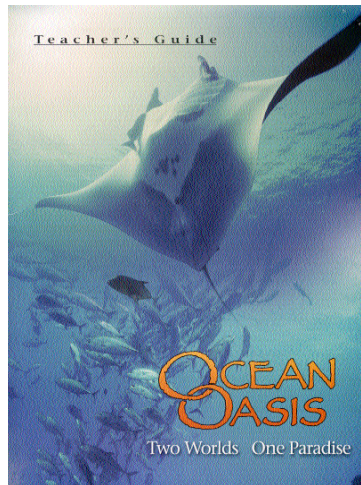
Barbara Flagg's consulting group, Multimedia Research, specializes in formative and summative



evaluations of technology-based educational products and has implemented formative evaluations for draft teachers' guides for two giant screen films. One study used 16 middle school teachers drawn from eight U.S. states. The second study used 10 elementary and middle school teachers drawn from six states. Flagg says, "The majority of the teachers had taken their students on a field trip to a giant screen film, but less than half had received a teacher's guide that related to the film they viewed, and even fewer had used that guide in their classroom before or after seeing the film."

Additionally, Multimedia Research has carried out summative evaluations on four giant screen films where students who saw the film and did activities from teachers' guides were compared with students who saw the film but completed no activities. "In all four studies," Flagg reports, "learning of film-related content increased significantly, but doing activities did not add measurable value to the learning outcomes."

MFF recently conducted a short survey with 100 teachers at the Franklin Institute in Philadelphia for its upcoming film *Space Journey*. Says Janna Emmel, associate director of research at MFF, "We asked some questions related to outreach materials, including what materials would they *really use* if they were planning a field trip to an IMAX film. Though less than half of the teachers who responded had actually taken a class to a film at the museum, 92 percent said they'd use a teacher's guide if they did plan a field trip. About 56 percent of the teachers said they'd use related web sites or classroom posters. Interesting, however, that of those teachers who said they had previously attended an IMAX film with their class, only 16 percent said they actually used some type of supplemental outreach material before seeing the film—and those who used them said they were helpful. So why did only 16 percent say they actually used the materials? Did they not receive them? Did



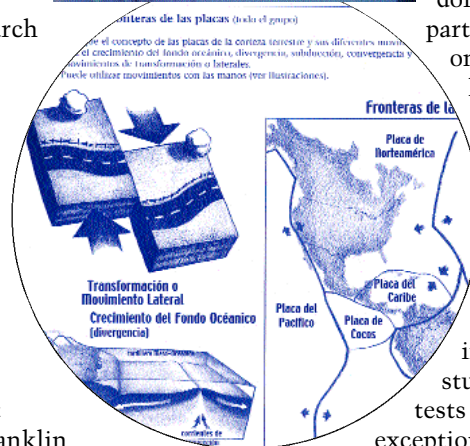
Summerhays Films produced the teacher's guide for *Ocean Oasis* in English and Spanish.

they not find them useful? Did they run out of classroom time? We don't know, and obviously more research is needed.

"Like other producers, particularly those whose films are funded in part by the NSF," Emmel continues, "[MFF] tests the impact of doing activities in the teacher's guide with seeing the film versus just watching the film—and whether or not students were learning more from doing both activities. For the most part, we producers are all testing in one or two cities with a couple hundred children. Evaluations, through a professional evaluator such as Barbara Flagg of Multimedia Research or Art Johnson of Edumetrics, thus far have shown that by and large the teacher's guide activities do not have a major affect on learning. That is, doing activities in the teacher's guide did not cause students to score any higher on post-tests than watching the film only. One exception that I'm aware of is with our

film *Dolphins*. Art Johnson's research showed that the post-test scores of the students who performed activities from the teacher's guide improved more than the children who had seen the film only. Also, the children who participated in guide activities showed significantly more interest in learning more about dolphins than those who did not do any additional activities. That's certainly significant and important, that the guide helps inspire kids to want to learn more. What does this all mean? I think it means we need to do more research! We need to continue to look for ways to measure their use and success."

Considering the costs involved in creating educational materials, especially in the current economic state of the industry, perhaps more research is needed to ensure the materials are accomplishing their intended goal.



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"I think it would be helpful to people," says Sullivan, "to figure out a survey methodology that helps all of us learn and know with some confidence what degree of use is being made by the end user. What is really happening to these things? Is it genuinely a worthwhile investment on any of our parts to be creating these materials and promulgating them, mailing them or otherwise, out to the educators? It became fairly clear in even the relatively simple workup to Toronto that Tracey and I did that no one really seems to have much of a grip on that. Let's

just at least know what we're doing and if it's having the effects that we wanted it to have and need it to have."

DOES GSTA HAVE A ROLE IN THIS?

In its leadership position within the giant screen film industry, perhaps there is a role for GSTA in establishing best practices for educational materials.

"This is an example, I think, of where the GSTA can be so helpful," says Palmer. "For MacGillivray Freeman, National Wildlife Federation, or anyone to do it alone, it's too much."

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—Tracey Guiry, IMAX Theatre At-Bristol

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"I think what we were trying to do in Toronto," Sullivan explains, "was really try to be sure that the GSTA is trying to help all of us get some focus on some of these costly and potentially very important issues, and have an effective place and means of considering them or addressing them. If, indeed, we can find some smarter, better ways to approach some of these questions, then by all means let's do. I think these are the kinds of things that any good member service organization should be challenging itself to think about and respond to."

"Awareness is usually the first and most important step on any of these things," Sullivan continues. "If we can help the producers be aware of intrinsic limitations or barriers to the use of materials that they're spending some fair effort to develop, that's not a bad thing. Even if it's as simple as helping them be more effective in the use of resources that they're already committing. We had fairly simple goals for that first session, largely because it was very clear, even on cursory preparations for it, that these were not questions any of us had really taken much of a close look at before."

"Let's acknowledge to each other these are questions worth some care and consideration. And we'll keep working within the education committee to be one of the key places in the association moving along on these things—in between our day jobs." ■

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