☐ THE J.E.T.T. FEATURE

Educational Media's SStar System: Does It Meet Your Teaching Objectives?

This is the third in a series of exclusive *J.E.T.T.* surveys showcasing state-of-the-art learning laboratory systems. It is not the intent of *J.E.T.T.* to "sell" or otherwise endorse any of the systems we feature; we wish to present them in an informative and factual light so that our readers have information from various points of view to help them reach valid conclusions on which to base wise choices, when it comes to selecting the learning laboratory system that is "right" for them.

Life, as we know it, offers nothing that is perfect, and that goes for learning laboratory systems as well. None of the systems surveyed did everything all of its endusers wanted it to do, nor were all the functions—of which the systems are capable—desired or used by every enduser.

Is it unreasonable to hope that a "perfect" learning laboratory will ever exist? Perhaps. However, if enough concerned educators in the United States communicate their pedagogical goals and needs—which do not necessarily coincide with those of others around the world—to the manufacturers and distributors of these systems, a more flexible learning laboratory may someday exist, that is to say, a learning laboratory that can be *specifically tailored* to provide what is instructionally valid—not more, not less—for a *particular* learning environment.

Our nationwide poll of distributors, endusers, and dealers of learning laboratory systems shows that with the rekindled interest in native, second, and foreign language learning, sales of state-of-the-art learning laboratories are improving; numerous institutions and organizations are either replacing out-dated equipment, expanding existing facilities, or installing learning laboratories for the first time.

The *J.E.T.T.* poll was conducted among distributors, endusers, and dealers of the major learning laboratories available on the U.S. market. In preparation of our poll, we developed three survey instruments: a distributor questionnaire, a dealer questionnaire, and an enduser questionnaire. The questionnaires, together with corresponding cover letters explaining the purpose and intent of our survey, were sent to the appropriate presidents or authorized representatives involved. All three questionnaires were purposely descriptive, that is, oriented toward elicitation of factual data and not toward analyzation of causes and effects.

In our cover letter to the companies, we asked for the following: (1) a list of all U.S. installations where the latest model of the lab was operational; and, (2) a list of authorized dealers who service and/or install the equipment across the country.

As soon as we received enduser installation and dealer lists, we sent out the appropriate questionnaires. Where possible, at an enduser installation closest to us in proximity, we arranged for a "hands on" demonstration of the equipment by the endusers who use the equipment on a regular basis and have done so for more than four months.

The information in each learning laboratory feature is derived entirely from the questionnaires, our "hands on" experience, and our background research. The information in our feature survey polls is limited to the United States of

America; not included in this poll are distributors, dealers, and endusers outside of the U.S.

Endusers completing our questionnaires—unlike distributors and dealers—often attached letters cautioning us at *J.E.T.T.* not to assume that the learning laboratory they had picked as the best was necessarily the best system for everyone.

Said one enduser, "When we were trying to pick the best learning lab for our program, I was reminded of something the president of Cornell used to say about trying to decide what is best for you: 'Picking the best is more like identifying a future spouse than picking a stock for investment. When you encounter the one for you, you'll know it.' " But, like the spouse, we might add, your "pick" of a learning lab is very likely to be one you and others will "live with" for some time to come. Would it not be the better part of valor and virtue not to rush into it? Would it not be prudent to prepare thoroughly for the encounter?

How do the majority of prospective endusers prepare to "encounter" the right lab for them?

Theoretically, a person could buy a state-of-the-art learning laboratory sight unseen. Although theoretically possible, such an approach is highly unlikely given today's priorities; any learning laboratory on the market represents a substantial monetary investment. Schools and organizations in the market for such systems usually require well-documented justification for purchasing one system as opposed to another.

According to the *J.E.T.T.* poll, most endusers surveyed first learned about available learning systems from exhibitors' displays at the major national educational conferences and conventions. Often, all major learning laboratory manufacturers or distributors have abbreviated versions of the equipment on display, together with brochures and literature "selling" their labs as the best choice for today's education, training, and learning.

When a prospective buyer picks up a learning lab brochure at such a conference display, he or she may encounter what one enduser experienced: "...at the end of the brochure was the eager and willing hand of the lab sales rep who seemed overly anxious, more than willing and able, to hand out glittering generalities about what his lab could do; and, to top it all off, he gave the most fascinating whiz-bang demonstration of the equipment...it all went by me so fast that all I remember is the glitz and glitter of little diodes that went blinkideeblink with the lights..."

Anyone who expresses interest in learning laboratories at such a conference will, in all likelihood, receive follow-up phone calls, follow-up correspondence and literature, and even follow-up visits from the authorized dealers of the various systems.

As one interested prospective enduser learned: "The learning lab business is very competitive, often intensely "hard sell"...it is easy to fall for the hard sell and end up missing the facts about *if* and *how* the equipment meets the learning goals of a particular program or curriculum...my advice to anyone in the market for a learning lab? Guard against the hard sell by asking the hard, tough questions that will give you all the facts you need to help you decide if the lab will do everything your learning objectives demand..."

Giving our readers information that is useful in asking the "hard" questions about **how a particular learning laboratory meets specific learning objectives is the overriding purpose of the *J.E.T.T.* learning laboratory features.**

To give our readers information about state-of-the-art learning laboratory systems, we begin our features by examining the company line, that is what the system's literature and the distributor claim; and, finally we share with you what authorized dealers and endusers say about the learning laboratory of their choice.

However, before we begin, the editors of *J.E.T.T.* gratefully acknowledge everyone who provided us with information, especially the many endusers who gave so generously of their time to let us know about their learning laboratory. Without you, this survey would have been impossible to conduct.

It is not the purpose of this survey to identify all the people who have been instrumental in providing us with information. Therefore, we will not name and line all of you up like little ducks in a row. After all, you know who you are, and we know to whom we owe a special debt of gratitude. To all of you, many thanks.

The ESL Educational Media SStar System

Educational Media, Inc., the company sporting "The Learning Lab Company" on its letterhead, approaches prospective endusers differently than some of its competition, according to Robert F. Cate, Vice President of Sales.

"It is a concern of mine," states Mr. Cate, "that to focus specifically on our SStar System would indicate to a potential user that this is the system that is best for them. We at Educational Media take great pride in our ability to provide a complete line of language laboratory systems that will meet the specific needs of endusers... because of the broad line of equipment we manufacture, our approach with endusers is quite different...We very seldom...sit down with a customer and talk to them only about our SStar System. We generally work from the opposite end. We take into consideration their perceived use of the system, the technological mind-set of the user, their budget, the amount of time the user will be able to spend in innovative and creative development, their future plans for expansion, and the total media concept. Quite frankly, we feel that a microprocessor-controlled language laboratory system is not for everyone...The reality of the situation is that often a simple, mechanical switch type system will meet all the user's requirements, and is less costly to purchase...we urge any potential user to take a more practical and realistic look at what their specific needs really are, and choose accordingly."

We begin our look at EM's SStar System with Mr. Cate's concern, namely, that by focusing on the microprocessor-controlled laboratory system, we may also be leaving the impression with our readers that such state-of-the-art systems are "the best for them."

It seems to us that in order to decide whether or not a learning laboratory system meets specific pedagogical and learning needs, one must know what the various systems can and cannot do. Since inherent in many of us—our readers have told us that they are always hoping that the very latest will also be the very best—is the belief that research and innovation find expression in the very latest products on the market, we must know what "state-of-the-art" means in learning laboratories. Those of us who need only to play target language songs to our students will purchase $29.95 cassette recorders from K-Mart and not bother with language laboratory systems. But those of us who have more complex pedagogical needs will seek out more complex electronic tools to help us meet our goals and objectives. Because prospective buyers of learning laboratories contact us about state-of-the-art learning laboratories, and because there is renewed interest in the usefulness and need for such systems, we are featuring the high-end laboratories. Since Educational Media has, in its SStar System, a state-of-the-art microprocessor-controlled laboratory system that is currently being used in U.S. installations, we are focusing on it at this time. Later volumes of *J.E.T.T.* will feature other language learning laboratories and technologies useful in the acquisition of native, second, and foreign language learning.

Our biases at *J.E.T.T.* show when we express the view that we believe that neither educators nor students should be victimized or held hostage by any existing or emerging technologies. We voice this belief by saying to our readers "Ask not what this equipment can do for you that no equipment has ever done, but ask how can this equipment help me achieve my teaching objectives." We have no biases when it comes to the brand or type of equipment our readers buy; they must determine their pedagogical objectives; they must decide for themselves which equipment—if any—helps them achieve those objectives, and ultimately, they must work and live with their choices just as we must with ours.

We sent our Learning Laboratory Questionnaire to Robert F. Cate, Vice President of Sales at Educational Media, Inc., in Oklahoma City, Oklahoma 73114. Our questionnaire was completed by Mr. Cate. Here's how he answered our questions about the SStar System Learning Laboratory.

Q.: What generation of this laboratory system is currently available for purchase?

A.: The SStar System is in a continual state of refinement and improvement. As new applications and requirements are made known to us, the system is updated to include these improvements. Because of the "forward engineering" feature of

the SStar System, we have yet to find a new application to which the system cannot be adapted. The advantage to the user is that their older system can be easily updated with the newest features without obsoleting the equipment or requiring replacement of the lab.

Q.: Is the lab produced domestically or imported from overseas?

A.: It is manufactured in Oklahoma City, Oklahoma, U.S.A.

Q.: In order to purchase this lab, must a customer go through an authorized dealer or can the lab be ordered directly from the manufacturer?

A.: Either way.

Q.: How many years has this manufacturer been manufacturing learning laboratory systems?

A.: 12 years.

Q.: In what part of the world can most learning laboratories of this current model be found?

A.: Midwest and Southeast, U.S.A.

Q.: What one feature of this laboratory is its greatest selling point?

A.: Random Access Memory.

Q.: In terms of number of student positions, what is the capacity of one console?

A.: 244 students.

Q.: How many different program sources can be transmitted at once to students at four times normal speed?

A.: 12 programs.

Q.: How many different program sources can be transmitted at once to students at normal speed?

A.: 12 programs.

Q.: Up to how many different program sources are possible?

A.: 12 programs.

Q.: Into how many groups can the console divide the student positions at any one time?

A.: 12 as program channels; 2 as conference channels; 1 as library.

Q.: Describe the nature of the automatic monitor of student positions...

A.: Students can be monitored sequentially and automatically by pushing the advance button on the instructor's console. In addition, students listening to a channel can be monitored in sequence. For example, if the instructor wishes to monitor everyone listening to channel 5, the advance button will automatically seek only those students listening to channel 5, and will move through them in a sequential and automatic manner.

Q.: Does this laboratory system have a dual-console option?

A.: The SStar System is available with a dual console option. However, we would normally not recommend this feature. The reasons why a dual console might be considered are: 1) You may have one group of students work independently while an instructor is working with another smaller group in a class situation. This can also be accomplished on the SStar System with a single console. 2) Another reason users consider using dual consoles is to be able to have two instructors work simultaneously with their students. Although this sounds like a good idea in theory, in practice it does not seem to work quite as well. Users that we have talked to that are currently using such a set-up report that the disturbance between classes is great, and many instructors are intimidated by working side by side with their colleagues in a dual instructor situation. We find the greatest application for dual consoles is in a satellite system. For example, to have a master console located in a central program distribution area and then two or more satellite consoles located throughout the student booth area for classroom requirements. This way, the lab can be controlled from a centralized console.

Q.: Under what conditions is copying among master console decks possible?

A.: Any combination.

Q.: Does the console permit "live" testing in which an instructor asks the questions and then sets the student machines into record, thereby recording only the student answer on the master track?

A.: Yes.

Q.: Describe the console in terms of its electronics...

A.: It is a solid state, microprocessor-controlled system with plug-in modules. It contains a CPU, read only memory, random access memory, and a digital tape interface.

Q.: If something goes wrong with the console—other than power supply failure—can the student decks be put into library—if they were not in library prior to the console's collapse—and will they continue to function as independent decks?

A.: Yes.

Q.: Is your laboratory system designed specifically for classroom or independent learning?

A.: Both.

Q.: What feature of your lab system makes it unlike any other system on the market?

A.: The random access memory, tape memory, and remote location of decks.

Q.: List and describe in detail all the optional and peripheral equipment available with your laboratory...

A.: Because of the modular design of the SStar System, we take great pride in its ability to be adapted to the specific requirements of the purchaser. In addition to the traditional Level II and Level III versions, several variations have been extremely popular: 1) Demand Start: Each student position can be equipped with a twelve position selector switch and a demand start button. This will automatically start the program sources from the student booth without the lab director's involvement. The student can simultaneously record this program on the master track of his student tape recorder...This enables the lab to operate in an independent study mode. 2) In a teaching lab application, the SStar System has been successfully used with our Topcaster overhead tray. This allows the lab to be used in a standard classroom. When the instructor wishes to use the lab facility, he/she pushes a button and the trays lower down between two rows of students, allowing oral reinforcement to take place in a quick, easy and efficient manner, with little or no classroom disturbance. 3) The instructor's console can be equipped with a number of cassette program sources. The random access memory system can then automatically test groups of students, recording their answers only. None of our products are "off the shelf". Our manufacturing philosophy is that we bring all of our subassemblies to a certain point of fabrication and then complete the final assembly according to the user's requirements. This flexibility is unique to our company when compared to any other language lab manufacturer in the world.

Q.: How many power supplies are standard with your console?

A.: Two low voltage DC power supplies, one for the electronics and one for the tape deck motors.

Q.: Describe every source jack on the console...

A.: It is normally equipped with two auxiliary input jacks; however, more can be added (up to 12 channel capability).

Q.: Describe in detail the microprocessor that runs the console...

A.: (Mr. Cate did not answer this question.)

Q.: Can all the program sources of the console be transmitted at the same time?

A.: Yes.

Q.: List and describe all the functions of the student deck...

A.: Start, Stop, Fast Forward, Rewind, Cue, Review, Pause, Sentence Repeat, Instructor Call, Instructor or Student Control of Deck, Two Channel Record & Playback, 2 Headphone/ Microphone Jacks, Tape Counter and an Irreducible Volume Control.

Q.: What feature(s) does your student deck have that makes it unlike any other available on the market?

A.: Die-cast aluminum mechanism, completely field repairable, and plug-in circuit board.

Q.: Are your decks designed specifically to be rack-mounted for remote control or are they designed to be mounted in carrels only?

A.: Either way.

Q.: Do you have two versions of the student deck—one for rack mounting and one for carrel mounting?

A.: No.

Q.: Are the student decks and the console master program decks identical?

A.: No. The program deck has one channel amplifier; the student deck has a two channel amplifier.

Q.: What feature(s) of your student deck make it unique?

A.: It can be booth or rack mounted; has plug-in electronic modules.

Q.: Describe in detail the visual display capabilities of your language laboratory system...

A.: When the instructor is monitoring students, the following information is displayed: the student number, the program channel the student is listening to, whether the student tape recorder is under instructor control or student control, and whether the student's tape is in the PLAY or STOP position. When the instructor responds to a student call request, the same visual indicators are presented.

Q.: Does the console cut off all power to any student deck not being used?

A.: No. The electronics are powered all the time. The tape deck motors are powered only when a function button is used.

Q.: Do student decks have "real" time counters?

A.: No.

Q.: Are student decks interfaceable with a computer so that the computer can take control of student machine functions?

A.: Yes.

Q.: If student decks are computer interfaceable, what kind of interface is required?

A.: (Mr. Cate did not answer this question.)

Q.: Can student decks be paired randomly?

A.: They can be paired, but not randomly.

Q.: What kind of track system does the student recorder employ?

A.: Two or four tracks.

Q.: What is the frequency response of the student deck?

A.: 50 Hz—10 kHz ±3dB.

Q.: What is the signal-to-noise ration of the student deck?

A.: 48 dB @ NAB Standard Reference.

Q.: What are the power requirements of the student deck?

A.: +24 V DC; +12 V DC.

Q.: What is the recording bias of the student deck?

A.: AC 100 kHz Nom.

Q.: How many motors does the student deck have?

A.: Four.

Q.: Describe the tape transport of the student deck...

A.: It has a die-cast aluminum frame with four motors (play, fast forward, rewind, and head engage). There are no rivets or welds. Any part can be replaced with standard tools. It is not necessary to disassemble anything to replace capstan belt.

Q.: What kind of connector does the headset have?

A.: Nexus.

Q.: Describe the headset...

A.: Dynamic with close talking boom microphone and a sensitivity rating of 103 dB ±3 dB @ 1kHz with 1 mW input.

Q.: What is the weight, headphone impedance, microphone impedance of the headset?

A.: (Mr. Cate did not answer these questions.)

Q.: What is the frequency range of the headset?

A.: Not less than 100 Hz—7.5 kHz.

Q.: Is the headset "field repairable"?

A.: Yes.

Q.: What is the primary material out of which the headset is made?

A.: Plastic injection molding.

Q.: Are there several versions of this headset?

A.: Yes, with/without volume control, with/without call button, various length cords, various jacks.

Q.: Can this headset be used with any cassette recorder on the market?

A.: Yes, it depends on the jack.

Q.: Once the lab system has been purchased, who installs it?

A.: Authorized dealer or the factory.

Q.: The warranty period for all parts and labor is how long?

A.: One year.

Q.: The prospective buyer of this lab system deals primarily with an authorized dealer, the manufacturer, or the national distributor?

A.: An authorized dealer or the manufacturer.

Q.: How many authorized language laboratory dealers are there for this lab system nationwide?

A.: Educational Media, Inc., sells its products on a direct basis* and through a few select language lab specialist dealers. Since language laboratory systems are a specialized product and market, we have found that we can best support our users with this approach. Language laboratory systems have historically been sold through traditional audio-visual dealers. They generally represent 20-40 manufacturers of products that are equally as broad as ours. It is, therefore, extremely difficult to find a local dealer who has the application experience and technical expertise to support the user in the manner that we feel is necessary. As a result, we have established a direct link to the users through our toll-free number, field service personnel and direct market contracts. In the shrinking world we live in, we have found that we can serve the user more expeditiously on a direct basis from our facility in Oklahoma City. Our company personnel are trained to perform lab orientations, warranty work, and maintenance agreements. The exception to our direct basis policy is in situations where we can find a local company that specializes in the sale, installation, and service of language laboratory systems. The following is a list of specialists who work with us as independent dealers:

**When we originally sent our distributor questionnaire, together with a request for a list of authorized dealers, to Educational Media, we were told EM sells direct; at that time, we did not receive a list of authorized dealers from EM.*

Mr. Ted Moll
Florida State Audio Visual &
Communications
P.O. Box 24322
Ft. Lauderdale, Florida 33307
(305) 561-1857

Mr. Ron Hill
Educational Media Company
1517 Girard, N.E.
Suite C
Albuquerque, New Mexico 87106
(505) 256-3507

Mr. Dennis Pecus
Badger Systems
6815 Milwaukee Avenue
Wauwatos, Wisconsin 53213
(414) 258-4264

Mr. Ken East
East Educational Service Company
P.O. Box 21024
Columbia, South Carolina 29221
(803) 772-0944

Q.: An engineer thoroughly familiar with the SStar System is located where?

A.: Oklahoma City, Oklahoma.

Q.: How many institutions nationwide are currently using this laboratory system on a daily instructional basis?

A.: More than 50.

Q.: What is the name, address, and phone number of the "point" person prospective buyers can contact about this laboratory system?

A.: Ralph Pohlmeier, President, Educational Media, Inc., 205 N.W. 132nd Street, Oklahoma City, Oklahoma 73114 or Robert F. Cate, Vice President of Sales, Educational Media, Inc., 205 N.W. 132nd Street, Oklahoma City, Oklahoma 73114 or Mark Goodin. All may be reached via the following toll-free number: 1-800-654-8428.

Although the contact person at enduser installations readily gave us the names and addresses of the dealers who had installed their SStar System—as has also been the case with the other state-of-the-art learning laboratories—we did not send dealer questionnaires to any of the dealers endusers told us had installed their laboratories. Because Educational Media, Inc., publishes a newsletter called "EM Horizons" in which they feature a column entitled "Dealer Profile," we at *J.E.T.T.* felt that the information we would get from our dealer questionnaires would unnecessarily duplicate information our readers could get from "EM Horizons." Readers who are interested in what dealers for Educational Media, Inc., have to say will find an excellent dealer profile on Dennis Pecus of Badger Systems in Milwaukee, Wisconsin. Readers should ask for the issue of "EM Horizons" that features the SStar System at Northwestern University for the Dealer Profile on Pecus.

Endusers of the EM SStar System

Without the views of the endusers, the picture of the EM SStar System is incomplete.

Nearly 25% of the SStar System installations surveyed responded to the *J.E.T.T.* enduser questionnaire. The major disadvantage of the questionnaire as an information gathering device is the problem of non-returns. While the reasons that underlie non-returns undoubtedly vary from situation to situation, we have to assume that the non-respondents in our surveys differ from the respondents. As the principles of educational tests and measurements decree, we at *J.E.T.T.* also caution our readers to keep in mind that "this difference between respondents and non-respondents may have a definite bearing on the validity of the results obtained."

What follows are the results of our poll of EM SStar System endusers.

U.S. Installations of SStar

(State)
Florida
Oklahoma
North Carolina
Louisiana
Massachusetts
Texas
Pennsylvania
Missouri
North Dakota
Illinois
Ohio

According to the enduser list provided by Educational Media, Inc., most of the SStar Systems are in operation in Oklahoma, EM's home state. The state with the next greatest number of SStar Systems is Pennsylvania, followed by Texas, Florida, NC, Louisiana, Ohio.

Other Labs Considered

(Brand)	(% of Endusers)
Sony	50%
Tandberg	50%
Ph-Electronics	34%
Telex	17%
Califone	17%
None	17%

While they were in the market for learning labs, most endusers surveyed indicated that the two other systems most-often considered were Sony and Tandberg which *J.E.T.T.* has already featured.

Sources of Information*

(Source)	(% of Endusers)
On-site visits to SStar installations	0%
Demonstrations by vendors at conferences	82%
Brochures/literature	0%
Recommendations of friends	17%
Ads in journals	17%
Bid by vendor	17%

*most consulted more than one source

Good choices are based on good, factual information. The respondents in our survey did not limit themselves to one source of information only. Although most saw the SStar in a demonstration at one of the various conferences, no one in our survey saw it in operation at an existing installation.

Number of Student Positions

(Position)	(% of Endusers)
35-40	17%
25-30	67%
15-17	17%

SStar Systems in our survey tend to be small, ranging in size from 25 to 30 student positions. This was true even if the SStar was located at large universities.

No. of SStar Consoles

(Consoles)	(% of Endusers)
0	17%
1	82%
2	0%
3	0%

Since the SStar can have up to 244 student positions per console—something no other system in our survey can have—the need for more than one console is not as great as with systems accommodating fewer positions per individual console.

No. of Persons Using SStar on Daily Basis

(Persons)	(% of Endusers)
150-200	34%
75-100	34%
0-50	17%
Varies	17%

Over 50% of SStar installations have between 75-200 persons using the system on a daily basis. The lab facilities are open from as few as 15 hours per week to a high of more than 70 hours per week.

Series of Student Recorders

(Model)	(% of Endusers)
SR-6000	67%
SR-6750/6752	33%
Both	0%

SStar User Profile*

(Type)	(% of Endusers)
High school students	34%
College foreign language students	50%
Faculty/teaching assistants	50%
ESL students	0%
High school teachers	17%

*some have several types

Based on our survey of SStar installations, this learning lab is used as much by high school students and teachers as by college students and faculty.

SStar Installation Date

(Year)	(% of Endusers)
1981	17%
1983	34%
1984	17%
1985	34%

According to our poll, the greatest number of SStar Systems were installed in 1983 and 1985. Depending upon the configuration and the lab or classroom facilities, installation time varied from 3 days to a week.

Options with SStar

(Type)	(% of Endusers)
Demand start	17%
Cassette program decks	34%
Shortwave radio	17%
Record players	17%
None	50%

Although SStar is computer interfaceable, none of the institutions returning our survey was using the system with the computer. Slightly over 50% of the enduser institutions responding indicated that at this time, they were not using any additional system options.

SStar System Dealer Support/Service

(Type)	(% of Endusers)
Excellent	34%
Good	17%
Cooperative	17%
Satisfactory	17%
Helpful	17%

Dealings with Educational Media, Inc.

(Type)	(% of Endusers)
Cooperative/Helpful	34%
Good	34%
Satisfactory	34%

Best Headset Feature

(Feature)	(% of Endusers)
Comfort	17%
Durability	17%
Don't like it	17%
Lightweight	17%
Fairly durable	17%
Easily/cheaply repaired	17%

Not all enduser installations purchased the headsets offered with SStar, since other headsets with matching system plugs can be used.

Which is more important to you, the SStar's technical specs or its instructional capabilities?

(Type)	(% of Endusers)
Instructional	100%
Technical specifications	0%
Both	0%

Endusers in our SStar Poll were in complete agreement on one aspect of the system: They valued its instructional capabilities as opposed to its technical specifications.

If you could send a wish list to Educational Media about the SStar, what would you wish for?*

(Wish)	(% of Endusers)
ALL CALL from program 0	17%
Provide (relatively) local service	34%
More durable headphones/ microphones	17%
Decreased number of breakdowns	17%
Haven't tried all system can do	17%

*some had more than one wish

Outstanding SStar Features

(Feature)	(% of Endusers)
Console without buttons	34%
Program distribution	34%
Monitoring different channels at the same time	17%
It works	17%
No one outstanding feature	17%

Most SStar System endusers considered both the program distribution capabilities of the system and the console without traditional knobs outstanding and very impressive features.

Student Reaction to SStar

(Type)	(% of Endusers)
Acceptable	17%
Positively resigned	17%
Not totally satisfactory	17%
Satisfactory	34%
No comment	34%

Endusers at SStar installations who returned our survey indicated that lab use was required, and therefore, students would generally not be over-enthusiastic and joyful about using a lab no matter what the brand or model.

Most-Often Used SStar Function

(Type)	(% of Endusers)
Intercom	57%
ALL CALL	51%
Monitor	51%
Library	34%
Test/Test prepare	17%
Program transfer	17%
Fast erase	17%
Conference	17%
4x copy transfer	17%
Remote control	17%

The three SStar System functions used most of the time by endusers responding to our survey were Intercom, ALL CALL, and Monitor. In the fourth ranked function, Library, students most often worked independently on their programs.

Who services your SStar system?

(Person)	(% of Endusers)
Local dealer	17%
Call 800 number at Educational Media, Inc.	51%
On-site technician and Educational Media	34%

The majority of endusers polled called the 800 number for advice and service.

Instructional Uses of SStar

(Type)	(% of Endusers)
Speaking/reading/ writing activities	34%
Speak/compare	17%
Testing	34%
Group conference	17%
Duplication	17%
Independent study	34%
Teacher-led practice	17%
No comment	17%

SStar System endusers who responded to our survey indicated that the majority of instructional activities revolved around specific communication exercises designed for testing and independent study.

Why was the SStar System selected at your institution?

(Reason)	(% of Endusers)
Cost-effective	34%
Local maintenance service	17%
Met instructional objectives	17%
Sold on merits not on bad-mouthing competition	17%
Best all around system for us	17%
Flexibility	17%

Based on the reasons given by endusers in our poll, SStar offers a goodly number of functions valued by our surveyed users at a price judged by them to be the lowest of the systems they evaluated.

Problems with SStar System

(Type)	(% of Endusers)
Oxidation of contacts	17%
No comment	34%
Nothing major	17%
Static electricity	17%
System headset parts fall out easily	17%
Fuses blow easily	17%
Teachers find it hard to operate even after training	17%

Once SStar System was selected, did entire proposal go up for bid?

(Response)	(% of Endusers)
Yes	50%
No	17%
Up for bid prior to selection	17%
No comment	17%

Like computers, many educators are fascinated by the technology of learning laboratories and use it without really knowing why; others are traumatized by the technology and refuse to consider using it in spite of potential benefits.

In both instances, technology is preventing the individual from assessing the pedagogical advantages of learning laboratories. Furthermore, popular approaches to learning laboratories include adapting courses to the capabilities of a given system in order to get the most out of the machines.

If learning laboratories are to serve education, teachers should first analyze their courses—and given the capabilities of the learning laboratory technology—decide if, when, and how such technology can help them achieve their pedagogical goals. The teacher's question should not be "What kind of impressive things can this learning laboratory do?" but rather "How can this learning laboratory help my students learn more effectively in the context of our learning situation?"

We have come full circle. We end our feature with the same question we posed in the beginning: Educational Media's SStar System: Does It Meet Your Teaching Objectives? Our aim has been to provide you with useful information to help you decide if this system can help you achieve your pedagogical goals. You must decide if it can do that, and if it can do so better than other state-of-the-art learning laboratories. No system, no matter how state-of-the-art, will determine your teaching objectives unless you have not determined them. With no teaching objectives, clearly defined and well-planned, technology victimizes and holds hostage both teachers and students; with no teaching objectives to determine if, when, and how a technology will serve us in our attempts to improve learning, the technology serves itself.

In closing, we paraphrase the philosopher and wonder: Are we educators sitting under a tree dreaming we are manipulating and using machines to do what we want them to do, or are the machines programming and manipulating us in their own image?