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Partnering with Profs

Patrick J. Cooney, B.S.



A culminating Project Presented to the Faculty of the
Graduate School of Lindenwood College in Partial
Fulfillment of the Requirements for the
Degree of Master of Human Resources

ABSTRACT

This thesis will focus on the study of corporate universities and the development of a business plan for the implementation of Bi-State University.

Research presented will cause the reader to consider alternatives to accomplish strategic organizational training and development objectives. The reader should keep in mind their organizational culture and the developmental needs of their organization's human resources.

The purpose of this commentary is to identify the various options available beyond traditional training methods to develop a corporate university for Bi-State Development Agency. The best way to research approaches to human development is to ask the subject matter experts. Several approaches were used in this research including phone interviews, interviews with practitioners in HR publications, teleconference interviews, journal articles from training/HR national publications, published works of professional trainers and books from the American Society of Training and Development Best Practices Series.

The business plan will act as a proposal for a partnership with a local university to offer an on-site Bachelors program at Bi-State. The degree program will be a study in Management with a major in Transportation. Over twenty Bi-State employees have a Masters or Ph. D. that qualifies their participation as instructors in this joint venture. Many of these people have or are currently teaching in local colleges and universities. The education plan will go beyond theory into practical application using real-world transportation problems and opportunities. Students will learn through a unique challenge of combining classroom theory with practical application of the learned theory on the job at Bi-State. This developmental approach will provide participants with education and practical career building learning. This project is one of a series of HR initiatives to assist Bi-State in creating a Learning Organization and help become "the employer of choice" in the public sector in the St. Louis region.

COMMITTEE IN CHARGE OF CANDIDACY:

Professor Gareth Gardner, Chairperson and Advisor

Dean Arlene Trisch

David N. Sanders, M.S. Industrial/Organizational Psychology

Table of Contents

List of Tables	vi
List of Figures	vii
I. Introduction	1
Developmental Choices	1
Independent Study	2
Cornell University Home Study	7
Partnering with "Profs"	9
Changing Training Roles	10
Cognitive Learning	11
Video Learning	13
On-the-Job Experience	15
Off-the-Job Experience	16
Discovery Learning	17
Pay-Per-View Interactive Desktop Training	17
Training on the Silver Screen	18
Mutual Learning - Shared Lessons	19
Choosing Alternatives Is Like Playing Ball	19
Closing the Circle	20
Forming Linkages with Training Advisors	21
Corporate Universities	23
Conclusion	23
II. Literature Review	25
Current Practices of Corporate Universities	25
"The Three Prototypes for Corporate Universities"	25

Subject Companies	26
McDonald's Hamburger University	26
Dial Corporation	28
Chick-Fil-A University	29
Motorola University (MU)	31
Saturn	37
Federal Express Corporation	40
Leadership Institute Core Management Courses	41
Management Principles I	41
Management Principles II	44
Management Principles III	45
Leadership Institute Elective Courses	47
Diversity: The Leadership Challenge	47
Participative Leadership	50
Leadership Series FXTV Broadcasts	51
Corporate Leadership Council	52
Training Benchmarks (CLC 1-8)	52
Research Findings	52
State-of-the-Art-Learning Centers (CLC 1-9)	53
Research Findings	54
Schwartzenegger Company	54
Segal Company	55
Stallone Company	56
Connery Company	58
Van Damme Company	59
Conclusion	60
III Methods and Evaluation	64
Materials	64

Plan Objectives	64
Partnering with “Profs”	65
Dual Deans	67
Bi-State Development University Faculty	67
Internal Advisors	68
Advisory Staff	69
Potential Instructors	69
Tuition Assistance Enhancements	71
Program Description	71
Core Curriculum	72
Courses of Study	74
Management	74
Accounting/Finance	74
Marketing	75
Economics/Money & Banking	77
Electives	78
Information Technologies	79
Human Resource Management	79
Practicum Options for Electives	80
Sample Adult Learning Assignments	81
Public Speaking Requirements	82
Transportation Management Culminating Project	83
Subjects	83
Implementation Action Steps	84
Instruments	84
Procedure	85
Appendix A	86
Appendix B	87

Appendix C.....	90
Appendix D.....	91
Works Cited.....	93
Vita Auctores.....	95

List of Tables

Table 1	Traditional Training Perspective Versus the New Performance Perspective	11
Table 2	Average Annual Amount of Training Completed by Employees	52
Table 3	Division between Corporate and Skills Training	53
Table 4	Prototypes to Achieve Corporate Objectives	61

List of Figures

Figure 1	How Do Home School Students Score?	4
Figure 2	How Do Long-Term Home Schoolers Compare?	5
Figure 3	Is Teacher Certification Necessary for High Achievement?	5
Figure 4	Does Spending Correlate with Achievement?	6
Figure 5	Relationship between Training Need and Tendency to Use Outside Provider ..	22
Figure 6	What Kind of Training Counts?	38

Chapter I

INTRODUCTION

Developmental Choices:

A Study of Alternative Methods and Approaches to Human Development

Is there one best way to train and develop employees? Which method of instruction or learning is going to provide optimum results? Should in-house trainers be used or consultants hired? What model should the corporate university utilize? What are the best practices of contemporary corporate universities?

These are just a few of the questions explored in this paper. The purpose of this commentary is to identify the various options available beyond traditional training methods to develop a corporate university for Bi-State Development Agency. The best way to research approaches to human development is to get with the experts. Several approaches were used in this research: The personal phone interview, interviews of practitioners in HR publications, teleconference interviews, articles from training/HR national publications, published work of professional trainers, and books from the American Society of Training and Development Best Practice Series.

The research presented is designed to stimulate the reader to think through alternatives to accomplish strategic organizational training and development objectives. The reader should keep in mind the culture of the company they represent and the developmental needs of the organization's human resources. A generic recipe will not be given, however a choice of many ingredients will be presented so that the right approaches can be developed for the company.

The order of the "developmental choices" is:

- Independent Study
- Cornell University Home Study
- Partnering with "Profs"

- Changing Training Roles
- Cognitive Learning
- Video Learning
- On-the-Job Experiences
- Off-the-Job Experiences
- Discovery Learning
- Pay-Per-View Interactive Desktop Training
- Training on the Silver Screen
- Mutual Learning - Shared Lessons
- Choosing Alternatives Like Playing Baseball
- Closing the Circle
- Forming Linkages with Training Providers
- Corporate Universities

Independent Study

The main reason companies want to provide learning opportunities for their human resources is to get a return on their learning investment. This return could be in the form of productivity increases, expense reductions, improved morale or increased profits. A major resource for employee development is in the area of home study or independent study. This form of self-development has many advantages, provided the student's needs are linked to the proper curriculum. There are a significant number of self-study programs available in a variety of educational levels. Some of these alternatives will be explored later. This author has a theory that the reason why the independent study option is not as widely used is because there is a belief that if people are going to learn something they must be taught by a trained professional. The academic and the training consulting communities have been telling us this from pre-school through executive development seminars. The belief also fosters the idea that if left alone, most people will not be able to learn.

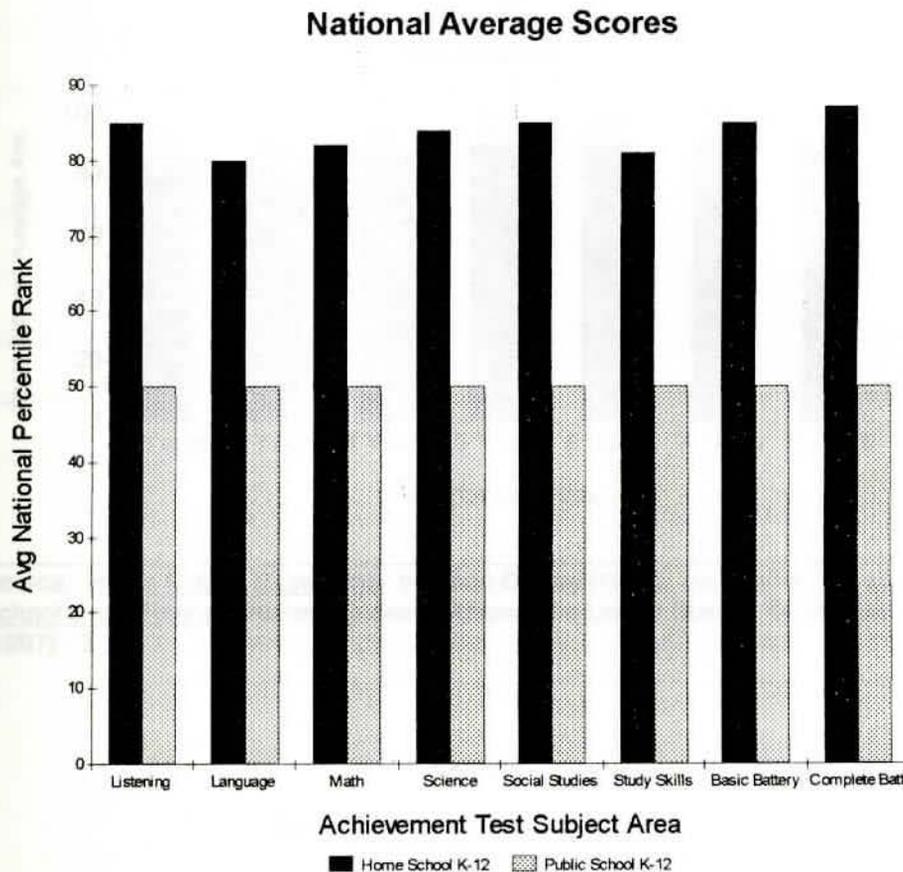
During this research, a very interesting study was found that drew some valuable statistical conclusions with regard to independent study or home education. This study is also unique because it is a study involving children and young adults who no longer learn via the traditional teacher student relationship. The study, "Strengths of Their Own: Home Schoolers Across America", collected data on 5,042 home school students from 1,657 families for the 1994-95 and 1995-96 academic years. There were nearly 6,000 surveys sent to home school families using a variety of sources and methods. Some were mailed directly to families by randomly selecting names from numerous mailing lists and others were randomly selected from participants of a similar study conducted in 1990. Others were blindly forwarded to families through the leadership of independent home school support groups and networks operating in every state. This research represents the largest and most comprehensive study on home schooling ever undertaken. The researcher is Dr. Brian D. Ray, who is President of the National Home Education Research Institute. He holds a Ph.D. in science education from Oregon State University.

The study concluded that there were 1.23 million home school students in the U.S. during the fall of 1996. The estimated margin for error for the calculation is plus or minus 10%, yielding a range of 1,103,000 to 1,348,000. This is similar to the total public school enrollment of Georgia or New Jersey (ranked 9th and 10th largest respectively among state public school populations nationwide). Put another way, there are more home school students nationwide than there are public school students in Wyoming, Vermont, Delaware, North Dakota, Alaska, south Dakota, Rhode Island, Montana and Hawaii combined!

The reason why so many parents are choosing to home school is because it works. Corporate America is missing a valuable low cost advantage to employee development. This study shows that home-educated students excel on nationally normed standardized achievement exams. On the average, the home-educated students out-performed their public school peers by 30 to 37 percentile points across all subjects (See Figure 1).

Figure 1

How Do Home School Students Score?



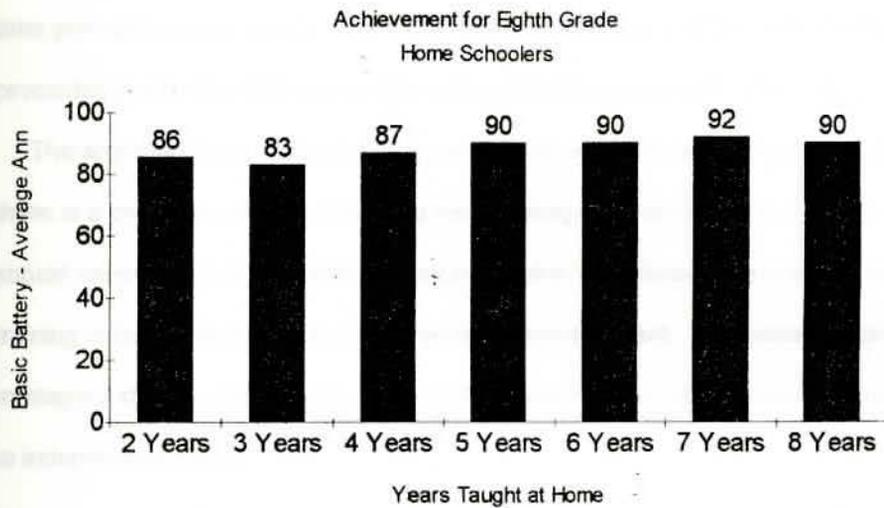
Source: Home School Researcher by Brian D. Ray (1997). As cited in The Home School Court Report, "Home Education Across The United States," by Michael Farris (1997) : 3.

Another interesting finding showed that test scores sometimes increase in relation to the number of years a student has been taught at home. The data for eighth grade students suggests that those who have completed two or more years at home score substantially higher than those who just completed one year of home education (See Figure 2).

It is typical in the business world to test something for a short period of time and if the results are not immediately apparent the idea is scrubbed. If businesses tried independent home study for two or three years, would they also see dramatic improvements in self-development test scores?

Figure 2

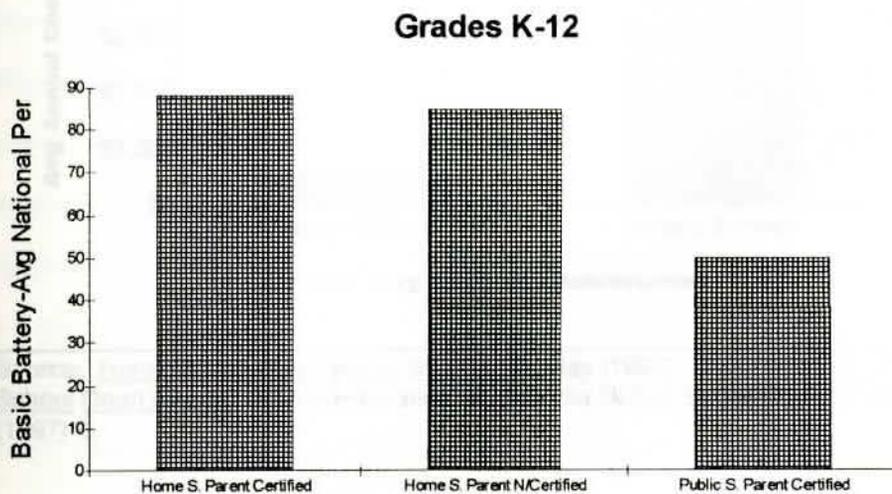
How Do Long-Term Home Schoolers
Compare to Those Who Switch to Home Education Midstream



Source: Home School Researcher by Brian D. Ray (1997). As cited in The Home School Court Report, "Home Education Across The United States," by Michael Farris (1997) : 3.

Figure 3

Is Teacher Certification Necessary
for High Achievement?



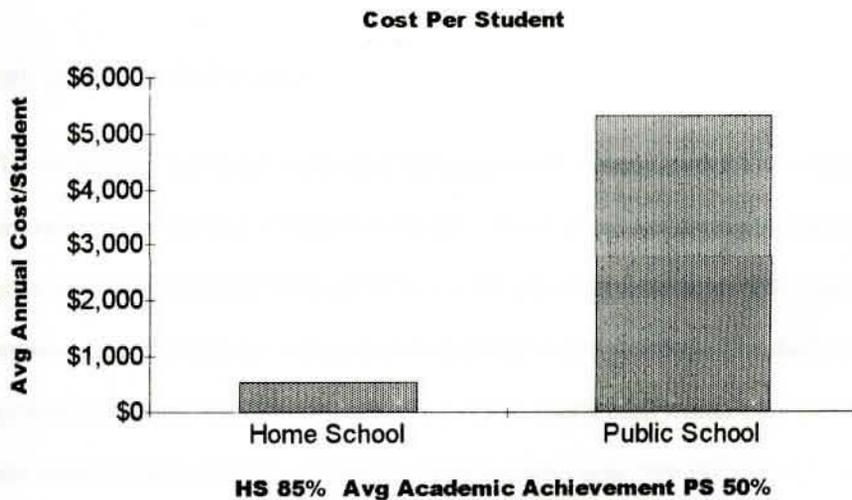
Source: Home School Researcher by Brian D. Ray (1997). As cited in The Home School Court Report, "Home Education Across The United States," by Michael Farris (1997) : 4.

A reasonable and often-heard critique is the claim that only parents with teaching credentials can effectively home school. The interesting findings from the data suggest otherwise. Home school students' test scores segmented by whether their parents have ever held a teaching certificate, reveal a differential of only three percentile points—the 88th percentile versus the 85th percentile (See Figure 3).

The argument heard from training consultants is that learning happens best when there is a professional trainer leading the learning experience. The previous statistics should cause everyone to rethink that philosophy. Of course, this is not to say all training is best when done in an independent environment. Professional training managers should embrace this concept and determine what courses lend themselves to independent study.

Figure 4

Does Spending Correlate with Achievement?



Source: Home School Researcher by Brian D. Ray (1997). As cited in The Home School Court Report, "Home Education Across The United States," by Michael Farris (1997) 6.

Managers sometime believe that the cost of a training experience has a direct relationship with the value received. In other words, the more expensive the instruction the more the student will learn. The real question is does spending

correlate with achievement? A cost-benefit analysis reveals that an average of \$546 spent per home school student per year yields an average 85th percentile ranking on test scores. Compare this to the average 50th percentile ranking. These figures do not include capital expenditures, such as buildings and land, etcetera (See Figure 4).

If these types of results are seen from young less-mature children, then why can't similar, if not better results be expected from mature adults who aspire to achieve career goals? Could the answer be that the benefits of home study in the workplace have just not effectively been tapped? The major conclusion the author of this article made is "there are two—and only two—keys to educational success: hard work and parental involvement". Substitute the word parental with mentor or leader or peer or boss and another world of self-development in the business environment may be discovered that is so cost effective that companies could reach all employees with opportunities to grow and do it for a cost that is considerably less than traditional training expenditures. (Ray 2-11)

Cornell University Home Study

The concept of home or independent study is not new to Cornell University, according to Rod Hawkes, Program Director. The Cornell University Home Study Program has been serving the food industry for a third of a century. Their approach is simple—a partnership providing quality education and training. This partnership has produced unprecedented growth. The Home Study staff works very closely with a dedicated industry Advisory Board to identify needs and map out new approaches to employee self-development.

Cornell offers an impressive listing of approximately 50 home study programs. These are basically a series of three specific studies: Food Industry Management, Distribution Management and Food Service Distribution Management. The hallmark of the program has always been high quality textbooks written by industry experts. In support of these texts and to provide an additional method of educational training, the Cornell University Home Study Program offers several video programs. In short, this

widely used program is all about providing quality, cost-effective, industry-specific educational and training materials for individuals who are seeking to further their own professional expertise. Over 300,000 people from the United States, Canada and many other countries have studied one or more of these courses.

Most home study courses can be completed within three to six months. Each student is assigned an instructor who reviews and corrects the written tests the student mails in at the end of each assignment. To pass a course, a student must maintain an overall "C" average. After a student has finished all assignments successfully, he or she completes a final examination, which is either included in the study guide or is mailed to the student. The open-book final exam is graded at Cornell and returned to the student with a report showing the grade earned on the final, and the overall grade for the course.

Quarterly reports of student progress are sent to company human resources departments. These reports give the current status of personnel enrolled, including such information as course(s) being taken, date of enrollment, last lesson received, social security number, home address and student status. Each student who successfully completes a Cornell University Home Study course will receive a Certificate of Completion. An Honor Award is presented to each person when he or she receives the final grade for the fifth course completed. With completion of the tenth course, a student receives an intermediate Honor Award, after the 15th course, a High Honor Award and the Highest Honor Award for the 25th course. Unfortunately, these courses currently do not carry Cornell University credit.

Enrollment is easy and tuition is reasonable. Cornell Home Study is a nonprofit educational program. The tuition is \$60 for most courses and \$85 for courses in the Distribution Management Series. Currently there are over 18,000 active students. This is another low-cost, self-paced, non-traditional method of self-development that is available for the asking. Cornell University is just one example of this method of learning. The American Management Association as well as other training and development firms offer excellent home study alternatives.

Partnering with "Profs"

A valuable resource for solving HR problems that is often misunderstood and underutilized is the university professor. There is an awesome store of brainpower residing in America's universities. Unfortunately this marvelous resource isn't always easy to tap. As professors read their papers, helping corporations solve problems seems to be the last thing they have in mind. Many don't even study real business. Experiments conducted with college students are typically easily controlled, thereby providing a surer path to publication, promotion and tenure. Papers that focus on theory rather than application are considered more elegant and scholarly. Some professors have even been quoted as saying, "if businesspeople were really smart they would be in academia". Despite all these apparent obstacles, there exists a fertile opportunity to develop a productive partnership between the HR community and academia.

A good example in tapping resources collectively is two professors from Fairleigh Dickinson University's Center for Human Resources Management Studies and the head of organizational development and management development from the West Caldwell New Jersey based Ricoh Corporation. Their charge was to develop an employee survey to measure employee attitudes and culture. It is believed that the end product will be superior to what either group could create by itself, which explains why the company has partnered with the university.

Professors will add value to the project by performing advanced statistical analysis on returned survey forms. The company believes that having academics join in the surveying and strategizing keeps Ricoh's HR group alert to new possibilities. The group vice-president and Ricoh's HR chief, Ted Groske stated, "Any organization accumulates sacred cows, but with a professor in the room, our folks aren't afraid to test ideas that might seem a little controversial". In addition, the academics sharpen the employee's ideas by contributing insights from current research psychology, management and other disciplines.

There are many options for tapping the expertise of professors. For many years, companies have paid professors to consult or teach executives, and academics now working together believe more is gained by forming partnerships that require professors and managers alike to become active participants and learners.

There is a change in attitude among businesses and universities to come together. The change in attitude is driven partly by new accreditation standards that require business schools to get involved with the business community. This is quite prevalent in the St. Louis-based accrediting organization AACSB, the American Assembly of Collegiate Schools of Business.

Companies see real benefit from these partnerships in their struggle to manage people more effectively. Corporations are highly susceptible to lost opportunities and employee cynicism. Executives are bombarded by management fads, "flavor of the month" practices and shoot-from-the-hip business decisions. Professors offer a practical cure to these challenges — scientific methods that can determine what actually works.

Management and executive development is about a \$12 billion a year business, and business schools might have about one quarter of the market. With universities under heavy financial pressure, opportunities to increase that market share are highly tempting. This is especially true if the school can deliver training to a well-known corporation and use its reflected prestige to recruit students. (Human Resource Executive cover story)

Changing Training Roles

It is critical that trainers align their efforts with the strategic direction of the corporation. The name of the game today is performance improvement and trainers need to become more skilled players. The American Society of Training and Development (ASTD) is about to release a new book entitled — ASTD Models for Human Performance Improvement: Roles, Competencies and Outputs. The thrust of this book is to entice trainers to jump from "trainer" to performance improvement specialist. It will help traditional trainers to see their work through performance -

colored glasses. Management today wants more than just a change in behavior; they want an improvement in output. Table 1 illustrates how ASTD compares the traditional training perspective and the new performance perspective. (Corporate University Review 6-7)

Table 1

American Society for Training and Development
Traditional Training Perspective Versus The New Performance Perspective

<u>Training Perspective</u>	<u>Performance Perspective</u>
<u>Assumptions</u>	<u>Assumptions</u>
<ul style="list-style-type: none"> • Training (giving employees more skill, knowledge or ability) is the solution to performance problems. • The goal of training is to give employees more skill, knowledge or ability. • A training department should deliver the training that customers ask for. 	<ul style="list-style-type: none"> • Training is one possible intervention when there are performance problems. • The goal of a performance intervention is to meet measurable strategic objective. • A performance improvement department should question whether training is needed. • A performance improver's most important skill is to diagnose performance problems.
<u>Roles</u>	<u>Roles</u>
<ul style="list-style-type: none"> • Training needs analysis • Capability after training • Transfer of learning to job • Return on investment 	<ul style="list-style-type: none"> • Performance analysis/diagnosis • Cause analysis • Intervention • Change implementation • Evaluation and feedback • Project management
<u>Measures</u>	<u>Measures</u>
<ul style="list-style-type: none"> • Reaction of participants • Capability after training • Transfer of learning to job • Return on investment 	<ul style="list-style-type: none"> • Effect on performance gap • Achievement of business goals
<u>Tools</u>	<u>Tools</u>
<ul style="list-style-type: none"> • Assessment instruments • Instructional design models • Group process • The Classroom • Learning technology • Textbooks, workbooks, tests 	<ul style="list-style-type: none"> • Organization's operating plan • Strategy statement • Process map • Templates, models, matrices for human performance management • Performance support technology

Customers

- The learner
- The learner's manager
- The training purchaser

Customers

- The process owner
- The performer
- The performer's manager
- The company's customers

Source: Corporate University Review. (July/August 1996): 6-7

Cognitive Learning

Edward E. Gordon, author, speaker, teacher, consultant on employee development and president of Chicago based Imperial Corporate Training, believes that by designing training that's based on cognitive thinking rather than behavioral learning theories, organizations can teach critical thinking and problem solving skills. It is estimated that organizations spend upwards of \$50 billion annually on workplace education, yet it is estimated that the employee back on the job never applies 80 percent of this information. If this is true it shouldn't surprise anyone that most managers see employee education as a cost and not a productivity driver for the bottom line.

In general, behavioral theorists contend that learning involves the formation of associations between stimuli (environmental factors) and responses (observable behaviors). Another way of saying this is that when a stimulus is occurring, a response occurs. A response can be conditioned to be more likely to occur depending on the consequences of responding. Reinforcing consequences increase a response; punishing consequences decrease a response. Behaviorists believe that arranging specific environmental stimuli and reinforcements will enhance learners' appropriate responses. This style of learning is best suited to explain simple forms of learning that involve repetition and associations.

The problem with this style of teaching is that many important learning behaviors do not involve making a series of fine-tuned specific and observable responses that can be

selectively reinforced or corrected. Furthermore, Mr. Gordon believes learning can take place without making overt responses — by reading, by listening and by observing.

Cognitivist theories, in contrast, do not focus on desirable behavior. Cognitivists view learning as an internal mental phenomenon that can be inferred from what people say and do. These theories stress the acquisition of knowledge and mental structures (schemata) and the processing of information, interpretations and beliefs. Cognitivists hold that information is processed through its acquisition, organization, coding, rehearsal, storage in and retrieval from memory.

A cognitive learning perspective assumes that learning occurs as a result of learners' active attempts to understand, order, and act upon their environment in ways that make sense to them. Knowledge is not an accumulation of discrete facts; rather, knowledge is the organization of a set of mental structures and problem solving processes that the learner manipulates and restructures in response to new information and experience. Learners do not receive new knowledge information or skills. Rather, they construct meaning by interpreting new knowledge information and skills in relation to existing knowledge, information and skills. (Corporate University Review 26-27)

Video Learning

One of the faster growing alternatives for employee development, especially in large corporations, is video learning. Satellite-based distance learning provides a non-traditional opportunity to hear from a variety of experts in a given field. It is economical for larger companies as training can be provided at various site locations simultaneously. The same message is being heard and the cost per participant continues to drop while developing an organizational video library for later use.

Today's technology poses a significant challenge to trainers and facilitators in transitioning from the traditional "interactive" training environment to a very controlled and limiting training process. Since 1993, the Fairfax County Government in Fairfax, Virginia, has been using satellite programming as a principle component for training and employee

development. A unique and interesting partnership-like approach was developed. The county's cable franchise contract provides Fairfax with a countywide closed-circuit television network — FCTN (Fairfax County Training Network). FCTN is available in over 300 locations throughout the 400-square mile jurisdiction, reaching the county's 10,000 employees.

The lessons learned by Fairfax County can help other organizations get more out of their distance learning programs. Hopefully, the following points will assist others to avoid the "look, listen and leave" syndrome experienced by Fairfax County:

- Promote new technology using new technology. Currently 90% of all distance learning registrations are made via e-mail.
- Prepare participants by providing handouts and resource materials two to five days in advance and include a fax form so questions may be prepared before the broadcast and faxed in early, to increase their likelihood of being addressed on-air.
- Make sure the lighting in the viewing classroom is desirable to accommodate for Differed group sizes and configurations.
- The size and location of television monitors is critical as well as all students' ability to hear without inflicting the "concert effect" on the front row participants. Consider using 60 inch monitors or at the minimum two 35 inch monitors.
- Have a fax and a phone in close proximity of the training room to address any technical difficulties and ensure continuous access to the broadcast.
- Always have at least one facilitator in the room. Localize training by conducting pre-and post-programming discussions.
- Encourage interaction by incorporating group or individual exercise such as, surveys, case studies, first-hand testimony, question asking and conducting related mini-presentations.
- Tap the benefits of other experts. The county has developed an ongoing collaboration with George Mason University in Fairfax, Virginia, to provide facilitators for GMU's

Masters Program. This partnership has provided the county with an opportunity to feature Dr. Peter Senge to present his conceptual framework called the "learning organization".

- Following the broadcast, fax the evaluation along with the facilitators observations to the producers.

Hopefully, these ideas will avoid others from the mistakes made by the pioneers of this exciting and valuable alternative to traditional employee development. (Corporate University Review 10-13)

On-the-Job Experience

Management development involves skill building. Developing management skills and abilities cannot be acquired just by listening and observing or by reading about them. They must be acquired by experience, through practice, under pressure and people must be able to learn from their mistakes. Many companies use on-the-job experiences to develop executive personnel. Several different methods of providing these experiences include:

- Coaching, which involves a continuing flow of instructions, comments and suggestions from the superior to the subordinate, or in more modern terms, from the team leader to the players.
- Understudy assignments to groom individuals to take over the superiors job by gaining experience in handling essential functions of the job.
- Job rotation, to provide, through a variety of work experiences, a broadened knowledge and understanding which is required to manage more effectively.
- Lateral promotions involving horizontal movement through different departments along with upward movements in the organization.
- Project and committee assignments providing an opportunity for the individual to become involved in the study of current organizational problems and in planning oral decision-making activities.

- Staff meetings which also provide exposure to new ideas, different thinking and problem solving techniques as well as providing a broader familiarity with what is going on. (Chruden/Sherman 195)

Off-the-Job Experience

While the heart of personal development is in on-the-job experiential learning, structural experiences off-the-job will prove to be a great supplement. Some more common examples include:

- The Case study method which is particularly useful in a classroom setting. These actual experiences in real organizations help managers learn how to obtain and interpret facts and analyze many variables in which to make effective management decisions. This is an excellent approach for developing decision-making skills.
- The Incident method which is a variation of the case method. Participants are given only a brief statement of the problem or incident. Pertinent details and facts must be drawn from the discussion leader through effective questioning. This method improves probing skills and helps develop a sense for what information is important for decision-making.
- The In-basket technique, which is yet another way to simulate a problem situation. Participants are given several to numerous documents. It is the challenge to decide what information is critical to identify and solve a problem and what information is "noise". Prioritization skills are enhanced as well as experience working under time pressures.
- Management games to put participants in a position of making continuous decisions with instantaneous computer response. This technique requires a high degree of participation. There are alternative designs of the game method that do not require computers.
- Role playing, which consists of assuming the attitudes and behavior of and acting out

the roles of individuals. This method teaches understanding and coping skills for problem solving as well as learning how to counsel others.

- Sensitivity training, providing self-insight and an awareness of group processes. This is an excellent vehicle for constructive participation in group activities.

(Chruden/Sherman 196-7)

Discovery Learning

The basis of discovery learning is to "learn by doing". BI Learning Systems, a Minneapolis based company, takes the emphasis off the trainer and allows participants to make mistakes, correct them and improve. Participants learn critical points by taking part in activities where they discover information instead of being told it. This method of learning is particularly beneficial because as people become more directly involved in the learning process, the retention rate increases dramatically.

BI customizes all its training around business issues and performance gaps. The training is tied directly to the unit or organization business plan. Training techniques range from multimedia to leader-led programs. BI offers classes in leadership, sales training, customer service and technical training. Their primary customers are in the automotive, financial services, health care and telecommunications industries. (Human Resource Executive 42)

Pay-Per-View Interactive Desktop Training

One of the latest technological alternatives to self-development is pay-per-view interactive desktop training systems offered by The Network Connection Inc. (TNCI). This innovative offering combines TNCI's Cheetah Courseware on Demand service, or server-based local area network system, that provides ready-for-use course selections at an hourly rate and AT&T Tridom's Vistacast Service, a new, digital, video service that delivers data and broadcast-quality video.

The bringing together of these two technologies makes video-to-desktop far more affordable. There is no longer a need for companies to invest many of their capital dollars in satellite equipment and training programming. Companies using this high tech alternative will spend between \$400 to \$600 on pay-per-view training as compared to the typical \$100,000 up-front satellite capital investment.

Another feature of this method is Just In Time Information (JITI). Developmental challenges requiring immediate training can benefit from the JITI program called, "The Consultant". Users will find video dramatizations or role models designed to help users guide them through nearly 85% of typical management and supervisory problems.

(Corporate University Review 21)

Training on the Silver Screen

Companies such as, Autodesk, Volvo, Pitney Bowes, Visual Services Inc. or the U.S. Food and Drug Administration are training employees at their local multiplex. For three years now, United Artists Theater Circuit, Inc. (UATC), has offered businesses a way to get their group training needs met through the medium of satellite theater.

The Englewood, Colorado based firm has 30 of its 400 world-wide sites linked directly by satellite with the ability to provide any number of portable downlink sites to meet customer needs. The theater features state-of-the-art interactive live systems with high-resolution video projection combined with theater-quality sound, fax, two-way audio, telephone and Internet connectivity. Audiences can respond via hand-held keypads.

Autodesk recently beamed two marketing programs to more than 45,000 people at 120 sites in 95 cities. They also trained 2,100 product resellers at 90 sites across the United States and Canada. The event saved time and money that would have been spent on travel costs. Instead of training 500 people in three to four months, they trained 2,100 people in one day. (Corporate University Review 22-23)

Mutual Learning - Shared Lessons

Mutual learning is defined as the ability to learn from the other guy's mistakes. One of the main reasons why mutual learning is valuable is because most people tend to be prisoners of their own experiences.

There is a strong Japanese quality management influence, which believes mutual learning within and across organizations is the most effective way to spread best-in-class management practices. Mutual learning goes beyond its TQM foundation by offering educational programs, research initiatives and network activities.

A major distinction between mutual learning and more traditional participative adult learning experiences is the learning that takes place in an open environment around candid discussions about mistakes or the previously unspeakable "corporate failure". A community of learners approach offers a network of fellow participants an executive can turn to for both encouragement and to share ideas while turning visions into action plans. The one-on-one feedback develops trust and provides valuable development not often found in other training techniques. (Human Resource Executive 50-52)

Choosing Alternatives Is Like Playing Baseball

Selecting the optimal training method requires a great deal of experience and understanding. Knowing the right choice was made is like playing baseball. First base is reached when job requirements are defined on expected outcomes. Second base is secured when the right training method is selected or the integrated methods of training are planned. Rounding third base safely occurs when training participants respond favorably to the selected method(s). When the training is completed and routine outcomes can be quantifiably evaluated on-the-job, a run is scored. (Zaccarelli 15)

Closing the Circle

Robert W. Pike, in his book, Creative Training Techniques Handbook, provides numerous valuable tips, tactics and how-to's for delivering effective training. Of particular interest are the seven laws of learning.

1. The Law of the TEACHER

Pike and this author agree totally on the point that teachers must teach from a prepared life as well as from a prepared lesson. The most effective instructors, regardless of the topic, are those who have experienced what they are teaching. Consider the two types of knowledge: Intellectual knowledge and experiential knowledge. People typically enjoy learning from those who have been there. If given the choice, should a surgeon and an airplane pilot possess intellectual knowledge or experienced knowledge? Remember the words of C.S. Lewis, the English philosopher: "A man with an experience is never at the mercy of a man with an argument."

2. The Law of the LEARNER

Learners must be motivated, interested in the material presented and excited about what is being taught. The learner must see what is in it for them. Motivated learners learn more than they think they are capable of and in a shorter period of time.

3. The Law of the LANGUAGE

The trainers language should be clearly understood by all students. Pontificating to put oneself on a pedestal hinders learning. The use of new or unfamiliar words should be defined immediately. Language must be a stepping stone not a stumbling block.

4. The Law of the LESSON

Truth or content should be presented as building on what is already known. Lessons should start from where learners are.

5. The Law of the TEACHING PROCESS

The trainer must excite and direct learner self-motivation. People often learn best through self-discovery. Pike frequently says, "There are basically three ways people learn and two of them don't work so we don't use them". You can tell people things. You can use statistics. Or you can put people in situations where they discover for themselves how effective or ineffective they are. People learn effectively when they are actively involved in the learning process, not passively observing it.

6. The Law of the LEARNING PROCESS

Learning does not take place until behavior has changed. The learner must reproduce in his or her own life the content to be learned. Involving as many senses as possible and using as many approaches as possible, may increase the chances of people grasping and applying the material they need to learn.

7. The Law of REVIEW AND APPLICATION

The completion of the content taught must be confirmed. Emphasizing practical application does this. (Pike 127-130)

Forming Linkages with Training Advisors

The dynamics of a changing business provide challenges when considering whether to train in-house or go get the experts from the outside. Linkages, as defined by Carnevale, Gaiver and Villet in their book, Training in America — The Organization and Strategic Role of Training, are relationships between employer and providers that exist

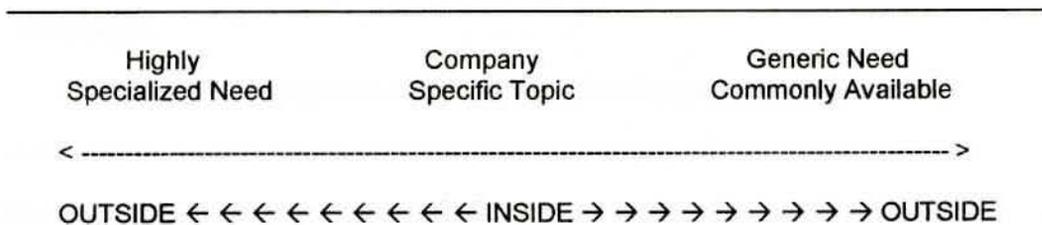
for the purpose of providing job specific training to a targeted group of employees. Training linkages are based on employer need. These linkages do not necessarily mean contracting with a provider from start to finish.

The following criteria affecting the make-or-buy decision were cited most frequently by ASTD, Best Practices Series Practitioners:

- **Expertise:** Deciding on in-house or outside is most dependent on how specialized or unique the desired training need is. The figure following shows the relationship between the specifications of the training need and the tendency to use an outside provider.

Figure 5

Relationship Between Specifications of the Training Need
and the Tendency to Use an Outside Provider



Source: Training in American -- The Organization and Strategic Role of Training, by Carnevale, Gaiver and Villet

- **Timeness:** Outside sources may be the best alternative when inside staff does not have the time to develop and deliver a program within the time requested.
- **Size of population to be trained:** The larger the training audience the more likely the decision to rely on in-house trainers, resulting in economics of scale.
- **Sensitivity or proprietary nature of subject matter:** Employers rarely issue security clearances to outside resources when the subject matter is sensitive or proprietary.
- **Cost consideration:** Usually cost is considered with other factors. Most employers view cost as a secondary factor when deciding to make or to buy.

- Employer conditions: A smaller employer or training department is less likely to have the resources, expertise or time to consistently meet a specialized need. (Carnevale, Gainer, Villet 89-100)

Corporate Universities

How major corporations are designing their learning model with a custom approach using the aforementioned alternatives, will be explored in Chapter II.

Conclusion

Many of the current alternatives have been explored for developing the organization's human assets. The author would like the reader to walk away challenged to use this information.

The challenges facing professional trainers and HR professionals require commitment. A commitment must be made to identifying specific organizational developmental needs that support strategic objectives. In synch with these should be Individual Developmental Plans (IDP's). When making choices on the method of training, the dynamics of each method must be understood. This can be accomplished by studying the advantages and disadvantages of proposed alternatives.

We must never just perform training for training's sake or because "the boss says a training program is needed". It is the responsibility of all professional trainers and HR professionals to diagnose true needs and select the most appropriate methods to meet those developmental needs. All too often symptoms of problems are addressed. This is much like piloting a submerged submarine and only being concerned about maneuvering around the "tip of the iceberg".

Responsible professionals are committed to putting their jobs on the line everyday in pursuit of accomplishing strategic objectives.

Our challenge is to go beyond seeing ourselves as trainers. The roles of change agent, performance manager and leader must be accepted. Corporations of the future will differentiate themselves by the quality and innovation of their outputs. Continuous human development is the answer to maximizing this differentiation.

Accept the challenges facing the organization with confidence and determination in knowing there are many alternatives for developing human assets.

The purpose of this study is to provide research results producing educational alternatives and a structured framework for implementing Bi-State Development University (BSDU) a unique corporate university partnership with an accredited college or university.

Chapter II

LITERATURE REVIEW

Current Practices of Corporate Universities

The purpose of this research is to explore what successful organizations do to develop their human capacity to successfully compete in their industry. The primary focus will be on identifying which of the three prototypes the corporate universities of the subject companies use. Additional information will be gathered relative to course content and state-of-the-art training facilities.

"The Three Prototypes for Corporate Universities" (Fresina 18-20)

Corporate universities will provide maximum benefit if their university model is one of the three choices that best capture the critical assumptions about the company. The three prototypes address mission or purpose. They are really simple and very effective in achieving organizational business strategies. The three prototypes are I Reinforce and Perpetuate, II Manage and Change, and III Drive and Shape.

- Prototype I: Reinforce and perpetuate is used when a company believes it has a winning formula. Through its university, the company strives to ensure that the winning formula is followed. These firms are at a point in their cultural development that reinforcing operational excellence is central to corporate success.
- Prototype II: Manage and change is an optimal strategy when a corporation believes that its practices, systems, policies, strategies or even underlying values need to be adjusted. Here the corporate university has the primary mission to assist with or even lead the management change. This is the model that most

closely articulated the mission of Retail Counseling University, an institution developed by this author for Malone and Hyde Incorporated.

- Prototype III: Drive and shape strategy is a bold step that does not happen very often. The thrust of this university variety is to be a primary force for driving and shaping the corporation. Motorola and GE are two of the most prominent organizations using this model.

Subject Companies

McDonald's Hamburger University

Hamburger University is the appropriate name of McDonald's world-wide training center. The primary function for the University is to promote the professional growth and development of McDonald's employees. Since the mission statement expresses "employees" it can be concluded that the University is for all levels of employees and not just a skills training institute designed for crewmember training.

The McDonald's Corporation was established in 1955. As with most franchising organizations, training franchisees is a critical element in maintaining consistent quality standards in everything they do. It became evident to top management that if they were to grow with consistent quality standards, a training center had to be established. In 1961, an operating restaurant was built in Elk Grove Village, Illinois, and Hamburger University was established in the basement. The classes were small in the beginning, with an average class size of nine to twelve students. It wasn't too long before the number of restaurants increased; so also did the average class sizes increase beyond the capacity of the original facility.

It was in 1968 that Hamburger University was relocated to a much larger facility near the Elk Grove restaurant. In just five short years that site had to be expanded to accommodate system growth and student enrollment in excess of 100 per class. In October of 1983, Hamburger University was relocated to its present picturesque 80-acre site in Oak Brook, Illinois. The current facility, built to accommodate a class

size in excess of 200, has six theater-style classrooms, an auditorium, four multipurpose rooms, seventeen seminar rooms, wireless interpretation booths in each classroom, a library, and four equipment laboratories.

The most popular and most heavily attended course offered by Hamburger University is the Advanced Operations Course (AOC). Over 3,000 students from around the world attend AOC each year. The curriculum covers four major management areas: Human Relations Skills, Interpersonal/Communications Skills and Leadership and Problem Solving Skills. All of these courses are presented in the context of McDonald's restaurant management needs. Currently, AOC is available in over 24 languages through simultaneous interpretation. The other courses offered at Hamburger University are for various levels of McDonald's leadership development.

State-of-the-art skills training requires state-of-the-art equipment. To enhance classroom facilitation, The University has access to a wide variety of sophisticated audio-visual equipment such as Power Point, rear screen projection, videotaping with instant replay capabilities and of course, simultaneous translation. Proven characteristics used to enhance adult learning are used for both large and small groups. Advanced learning techniques including student interactions via role-plays, discussion groups and restaurant simulations are the preferred menu. One of the unique characteristics of the qualifications of the resident teaching staff is their successful previous experience in restaurant management and other mid-management services. The entire management development process is enhanced by the fact that crewmembers who aspire for more responsibilities must serve in a trainer capacity if they are to be promoted. Once a unit manager is promoted to the district level, they again serve a portion of their tenure in a trainer capacity prior to eligibility for future promotions. McDonald's believes very strongly in people development. They will not use "unsuccessful operations staff" as trainers. Another strong bit of evidence to their commitment to quality training is that several classes of students are given the advantage of the close proximity of Corporate

Headquarters where key home-office personnel are used as instructors in their unique areas of expertise.

At the present level of more than 19,000 McDonald's restaurants in over 94 countries around the globe, approximately 5,000 students attend McDonald's University each year as they continue to progress in their McDonald's careers. To date, more than 50,000 students have received their degrees (Bachelor of Hamburgerology) as graduates of the Advanced Operations Course, and hundreds have received certificates of completion for other courses attended at this world-class "Center of Excellence" called Hamburger University. (McDonald's)

Dial Corporation

The Dial Corporation in the 1970's and 1980's was well known in the food and drug industry as a leader in management training and development. Back then their university was known as the Armour Dial Training Institute. Ray Higgins, who was a pioneer of education and employee development, led the quest to provide quality education for the retail and wholesale food and drug industries. The purpose of the Institute was to develop company employees from all divisions of their diverse company. Armour Dial was also unique in that they offered free multi-day development courses for District Managers of retail food chains, wholesale Business Counselors, and Regional Supervisors of chain drug stores.

In one of their four-day Supervision programs during the late 70's that this author attended, a class was filled with some of the most knowledgeable retail District Managers representing many of the most successful supermarket chains throughout the United States. This Supervision course was sponsored as part of their client relations. The facility was state-of-the-art. The instructors were strong meeting leaders who facilitated role-plays using video technology, which at the time was not a widely used practice. There was a mock grocery store set up with real product that was used to teach students the proper way to make store inspections. Many group case studies were given to challenge skills in solving typical people issues. A full day

was spent on performance appraisal training complemented with video taped role-play skill practice sessions. Students were given tours of local Phoenix supermarkets and taken to a real western town for authentic food and entertainment. A good time was had by all. Most importantly, all of the participants learned a great many new skills for handling people issues successfully. Another strong benefit from this program was that the relationships that were built during the four days endured for many years. There was a spirit of friendship that seemed to cross the forbidden boundaries of fierce competition.

On June 3, 1997, a telephone interview with Beverly Powell, Director of Diversity and People Development for the Dial Corporation, was conducted. It is very interesting to see major paradigm shifts in a corporation's philosophy to people development. The large staff of a dozen or so who represented the faculty of the Training Institute is down to a Director and a clerical assistant. Dial is taking full advantage of the wonderful technological improvements used to develop human talent but the vision of providing training and development for the food industry has gone by the wayside. This seems to be due to a combination of corporate mergers and the commitment to focus on the development of their own employees. Dial has become extremely cost conscious. It is an annual exercise to re-evaluate how training is being delivered and question whether what is being done is still the most cost effective method of achieving desired results. Vendors are used to present the latest management and leadership skills training. The company is managing change by providing CD-ROM training via their eight-station computer lab; individual coaching and multi-day sessions predominated by skills role-plays. (Dial)

Chick-Fil-A University

Chick-Fil-A University may be located in Atlanta, Georgia, but it's only a 1-800 phone call away from all Unit Operators, staff members and select team members. The following quote by Arie De Geus, author of The Fifth Discipline, characterizes the reason for this university: "The ability to learn faster than your competition may

be the only sustainable competitive advantage." When an associate receives a brochure explaining Chick-Fil-A University, they see pictures of high mountain peaks. The corresponding message is that the university has been developed to help reach a vision—a peak—by providing the knowledge and guidance needed to climb with care and confidence. What was really interesting was the following purpose statement: "As members of the Chick-Fil-A family, our purpose is to glorify God by being faithful stewards of all that He has entrusted to us—including our skills and talents. Increasing our knowledge about our abilities will avoid any unnecessary anxiety and frustration. And, if we are faithful, we will ultimately glorify God through them." What a powerful statement this is: to identify our business partner as God!

This organization does not believe that anyone can truly achieve his or her personal best alone, at least not without some difficulty. This is why the university incorporates a team-based philosophy of training and development. By drawing out one another's strengths, not only will individual growth occur, but the growth of Chick-Fil-A, Inc. will also prosper. The university cultivates a learning environment where competition is not the sole motivator, but the success of all involved is the driving force. By learning together, people are empowered to excel beyond what they thought was possible and reach their individual peak potential.

This corporation believes the most valuable resource is the employee. They prove this by networking the resources of the Chick-Fil-A family members to better utilize their own people, such as Operator-Coaches, Team members and Staff members as the university faculty. In the areas where they cannot find an expert from within the family, they will contract outside resources such as local colleges, consulting firms and industry experts. Another goal at Chick-Fil-A University is to increase the availability of support materials by acquiring books, workbooks, audiotapes and videotapes on requested subjects.

Chick-Fil-A wants to make learning very accessible. The company believes all will benefit by assisting individual employee development endeavors. Recognizing that it is no secret that a good educational experience can make employees more

marketable and more valuable as a team member and as an individual, the university is as close as 1-800-232-2677, ext. 8149.

The primary purpose at Chick-Fil-A University is to perpetuate the Chick-Fil-A vision and values through appropriate training education and development. Their training focuses on equipping individuals to accomplish the job in which they are currently involved. Development assists in the improvement of individual skills. Education prepares individuals for future responsibilities by teaching them new skills. Previously the university only focused on operator training, but they have navigated through new mountains of learning. They now offer various classes, seminars and resources to meet individual needs at whatever level they may be—introductory through advanced—in whatever talent or skill an individual is seeking to improve. These include programs such as Team Building Leadership Training, Basics of Selling and interpersonal Relationship Skills. Services available include meeting facilitation, developmental consulting, training design consulting and leadership profiling. (Chick-Fil-A)

Motorola University (MU)

Motorola's mission is to be a catalyst for change and continuous improvement in support of the corporation's business objectives. They provide for their clients the best value in leading-edge training and education solutions and systems to be their preferred partner in developing a Best in Class work force.

Motorola University began in 1981 as the Motorola Training and Education Center. During the 1980's, Motorola University's charter was to help the Corporation build a quality culture. The 1980's also saw the establishment of corporate-wide training plans and training investment policies. By the end of the decade, Motorola University expanded its operations both in the United States and around the world. The opening of the Galvin Center for Continuing Education in 1986 and the Singapore Training Design Center in 1989 brought new educational opportunities to employees worldwide. Motorola University also began offering new and more

comprehensive services, such as applications consulting. Since 1990, Motorola University has diversified further, establishing academic partnerships with institutes of higher learning around the world. Motorola University has also implemented cultural design and translation services. These partnerships and services are especially important as Motorola moves into new and emerging markets in Eastern Europe, Latin America, and the Asia Pacific region.

Facilities and Locations

The Galvin Center for Continuing Education in Schaumburg, Illinois, is the largest of the Motorola University training centers. The center is open six days a week, 15 hours a day. Rooms not reserved for training are available for meetings, workshops, or seminars of four hours or more in length. The center, dedicated in 1986 for use by all Motorolans, was expanded in 1991. The 133,000-square-foot facility consists of eighteen classrooms, thirty-six breakout rooms, seven training laboratories, a distance learning classroom, an auditorium, and a full-service cafeteria. The Galvin Center is also the location of eight training laboratories that provide a hands-on learning environment for engineering, manufacturing, computer networking, clerical, sales, and management training. The laboratories are used to deliver both internally developed and vendor programs. They are connected upon request to Motorola's Peer-to-Peer network which includes two Personal Computer laboratories, two Macintosh laboratories, the Network laboratory consisting of the Motorola Peer-to-Peer network, the Programmable Automation Literacy (PAL) laboratory, the Advanced Manufacturing laboratory, and the Visitor Briefing room. Several of these laboratories are also available at other Motorola locations. The Distance Learning Classroom in the Galvin Center offers students the opportunity to obtain advanced engineering degrees from either the satellite programs from the National Technological University or the microwave link from the Illinois Institute of Technology.

The Motorola Museum of Electronics is located adjacent to the Galvin Center for Continuing Education. The museum, officially dedicated in 1991, serves as

Motorola's institutional memory, reflecting the corporation's history and values. The museum contains 20,000-square-feet of exhibits that combine state-of-the-art video and computer-interactive technology with historical displays, a 220-seat auditorium, conference rooms, and the Corporate Archives. The exhibits illustrate major achievements in electronics and communications technology and focus on the people who made Motorola the organization it is today.

Motorola University Australia and New Zealand, established in 1994, provide training to suppliers and customers in Monash's first-class facilities.

Motorola University Central Region operations are located in the Galvin Center, and offer a full range of training products for Motorola businesses in the Chicago area and other locations.

MU China was established in 1993 in Beijing. It is located in the Motorola China Innovation Center (MCIC) of Motorola (China) Electronics, Limited. Training is conducted in Chinese and English.

Motorola University East is located in Mansfield, Massachusetts. This facility serves Motorola eastern region employees, customers, and suppliers and is available for community use.

MU Europe, Middle East, and Africa is a training organization that designs, develops, and delivers training courses. Courses are offered internally both as closed sessions, held at a time and location convenient to the requesting organization and as scheduled events open to all Motorolans who fulfill course prerequisites. A range of quality courses is also available to external organizations. Motorola University Europe representatives are located in England, Scotland, and France.

Motorola University Japan was established in 1994 by integrating Human Resources and Motorola University staff to form one training organization for Nippon Motorola, Ltd. The main training facility is located on the 35th floor of the Landmark Tower in Yokohama, Japan.

The training operation in Korea expanded in 1994 to include Motorola University. The expansion's objective was to better serve the training needs of Motorola Korea

Ltd. and Motorola Electronics Communications Inc. Training functions are located in Seoul, Korea.

Motorola University Latin America was established as a region in April 1994. This region includes Central America, the Caribbean, and South America.

MU Southeast Asia was established in 1989 in the Republic of Singapore. It is housed on level four of the Motorola Innovation Center in the Ang Mo Kio Industrial Park, which is located 15 minutes from city center.

Motorola University Southwest was established in 1991 in Austin, Texas. The facility also houses other Motorola departments, including Semiconductor Products Sector Staffing.

Motorola University West was established in 1990 in Mesa, Arizona, to support Motorola's ongoing commitment to upgrade skills and educate employees in the western region. As a result of a unique partnership between Motorola and Arizona State University, a state-of-the-art Motorola University training facility is located at the Arizona State University Research Park in Tempe, Arizona. The facility, encompassing 8,000-square-feet in two stories, serves the 20,000-plus Motorola employees who live and work in the Phoenix Valley, as well as customers, suppliers, and the academic community. In addition, it will have a global focus to serve Motorola's growing and diverse worldwide employee base.

Key Competencies

Motorola University Learning, Development, and Research is the MU center of competency for education and training activities. The organization globally integrates key business initiatives that support the future growth and achievement of the corporation's business goals. To accomplish this, the design function is organized in competency centers staffed with instructional designers, subject matter experts, and administrative support. Competency centers include Center for Culture and Technology, Executive Education Center, Engineering Competency Center,

Management and Organizational Learning Center, Market Development Education Center, Quality Center, and Technology Education Center.

Motorola University Learning, Development, and Research provides consultation and services to MU regions, MU customers, suppliers, and Motorola operating unit training organizations. Services include training needs analysis, instructional design, marketing and technical support for program roll out, language services and culture, planning, design, translation, and implementation of training, and training laboratory design and implementation.

Motorola University is working to continuously accelerate learning among Motorola employees, customers, and suppliers worldwide. It conducts research and develops leading edge methods and systems that will accelerate Motorola's progress in becoming a continuous learning organization. Future projects include thinking and learning research using Instrumental Enrichment, the CRT Thinking Program, and Structure of Intellect, learning organization research, The Learning, Training, and Education Research Conference, and learning preference research.

Top-down involvement is a key element of Motorola's education philosophy. Motorola knows that the support of its leaders in carrying out its key initiatives is critical to the corporation's success. In response, Motorola University has developed a unique curriculum for the executive and managerial populations. Corporate-level institutes provide strategic direction and lead change, paving the way for Motorola to achieve its business objectives. The following Institutes are offered: Focused Motorola Management Institute, Global Management Institute, Motorola Management Institute, Manager of Managers, and Vice Presidents Institute.

Executive Education designs state-of-the-art training programs based on the business needs of the vice president population worldwide. Vice presidents are individually selected by the CEO's office to attend particular programs that meet the needs of their businesses. Activities include Senior Executive Conference: Crisis Prevention and Management, Senior Executive Program: Emerging Markets, Senior

Executive Program: Latin America, Senior Executive Program: Software, and Senior Executive Program: Standards, Scenarios, and Strategies.

Customer and Supplier Services (CSS) supports Motorola's key goals and initiatives by working with selected customers and suppliers to improve their performance through diagnostic evaluations, customized education and training programs, and applications support. Efforts range from single interventions to full systems solutions for continuous performance improvement. CSS services include applications consulting, training, license agreements, public forums, Executive Institutes, Motorola University Press, and custom design.

Motorola University's Quality and Evaluation department is a customer-focused team of individuals who offer consultation, systems, and processes for conducting training evaluation studies. These studies assess the value of training and education events. The department measures Motorola University's performance in achieving Total Customer Satisfaction. Activities include the MU quality program, the MU evaluation program, and linkage to educational research. Training values can be assessed through questions that ask:

- Are the participants of training satisfied with the learning experience?
- Did participants learn the intended skills and knowledge back on the job and practice them, and if not, why?
- If training participants are transferring the intended skills and knowledge, what is the impact of that transfer to the organization?

Motorola University's Education, External Systems serves as a catalyst to create transformation of learning and teaching. It establishes global alliances with pre-K-16 school systems, the private sector, and not-for-profit organizations committed to lifelong learning. The outcome is for learners to achieve graduate competencies that are equal to or greater than the entry-level skill, behavior, and attitude requirements of Motorola, its customers and suppliers. Since 1993, Education, External Systems has offered summer learning programs that help children develop and apply skills that are important to their present and future success. These programs give middle-

work together to solve real-life challenges faced by Motorola. For instance, in 1995, participants created a wireless communications system that would be appropriate for the 1996 Olympic Summer Games.

Academic Programs directs the development of the MU accreditation and degree program. The department offers students the opportunity to obtain advanced engineering degrees from either the satellite programs of the National Technological University or the microwave link from the Illinois Institute of Technology. Academic Programs is responsible for development of the MU accreditation roadmap, coordination of services from the National Technological University, and educational and tuition assistance. (Motorola)

Saturn

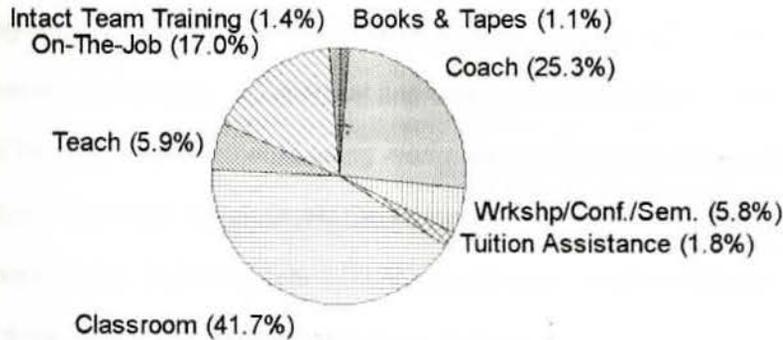
Saturn identifies itself as "a different kind of company". The People systems Team believes "Through competency-based training, we will become what our competitors believe we can't, truly competitive".

At Saturn, every employee has an individual training plan. This is true for the almost 10,000 employees from the president through the line workers. Each employee must receive 5% of his or her working time in training. That standard equates to 92 hours per year. Since Saturn believes that an educated workforce helps them stay competitive it should come as no surprise to learn that in 1996 employees averaged 151 hours of training. The individual training plans are developed jointly by the employee and their manager. Core requirements, such as, OSHA, safety of Saturn strategy classes are complemented by team leadership classes for everyone in that role. You can see from the graph which follows, how over 1.42 million training hours were distributed to 8,600 Tennessee and 800 Michigan employees in 1996

Figure 6

What Kind of Training Counts?

1996 Training Hour Distribution—1.42



Source: "Training at Saturn". Information sent by Julie Richman, Training and Development People Systems Team, Saturn Corporation, 100 Saturn Parkway, Spring Hill, TN 37174-1500. 3.

Training is looked upon as an investment, not a cost. Training is driven by the needs of the organization and must have a demonstrated impact on job performance. Over 600 Team Members and Team Leaders are involved in providing training. A Plant Manager might teach Quality Control and an Accountant might teach Finance. There are full-time Training Coordinators in each major business area. Their job is to insure that each employee in their area receives the 92 required training hours. They also work one-on-one with Team Members assisting them in achieving the goals of their Individual Training Plan. Every Production team has a part-time Training Coordinator who devotes two to three hours per week enrolling Team Members in classes and checking to see that monthly training goals are accomplished.

Saturn believes in employee training so strongly that every employee receives a quarterly bonus if their area training goals are met. The first three-quarters of the year are averaged over the entire company. The fourth quarter is an actual individual account within your specific area. Therefore, if ten people in one area have not completed their individual 92-hour training plans, all the members of that area are penalized. This interdependence is believed to empower U.A.W. work teams.

Training is delivered in one of the twenty-plus large training rooms. There is a Team Center for each team, a Technical and Safety Training Center, Service Technical Training Center, other meeting rooms and the Columbia Annex. In addition, their Northfield Development Center has 24 training rooms, Workplace Development Center, Robotics Training Lab, and Distance Learning Center. Currently distance learning is used for Retailer training.

There are 40 people assigned to the Training Design and Development Team, although only five are full-time. Subject matter experts work with interns and artists to develop training materials. Instructional design is developed internally for training materials. Train-the-Trainer programs prepare employee instructors.

In 1988 an Outdoors Program was launched to facilitate teamwork and problem solving. This is similar to an outdoor obstacle course. Saturn has also formed partnerships with universities. It's plant is in 20-hour production. This obviously causes a problem for employees to continue their education at a traditional school at traditional class times. Saturn began to partner with local colleges and community colleges to teach on site at all hours of the day in order to make education convenient for all employees.

It is no wonder that Saturn has the highest level of education in the country of all GM plants. Over 30% of the U.A.W. workforce have a Bachelors Degree and many have a Masters Degree. There are fewer than 100 employees out of 10,000 who have less than a High School education or a G.E.D. (Saturn)

Federal Express Corporation

Federal Express calls its university, the Leadership Institute. The Mission Statement of the Leadership Institute is "We provide education and development that enable FedEx management to understand, embrace and model the leadership principles of the People-Service-Profit (P-S-P) philosophy essential for the achievement of FedEx's global business objectives."

FedEx has revolutionized the overnight shipping business. Ask anyone who has joined the Federal Express management team what Federal Express is all about and the answer will quickly be determined that FedEx is a whole new ball game. The responsibilities and expectations, the relationships between employees and managers, the philosophic underpinnings of the policies, the daily demands, all aspects of the title 'manager', change upon entering the world of Federal Express Corporation. That's why the Leadership Institute was founded in 1984.

The Institute first developed and taught a course for front-line managers. The corporate reaction was strong and positive. The Leadership Institute now offers courses for senior managers and managing directors, for the development of individuals and teams, for better communications and working relationships.

The Leadership Institute believes that those who do the job best should teach others. Thus, the Leadership Institute sought Management Preceptors: senior managers and managing directors who are recognized as outstanding leaders, and are nominated for the position by a Vice President or Senior Vice President. Nominees must also have spent three years in management at Federal Express and meet Institute Survey/Feedback/Action and performance review criteria.

Upon joining the Leadership Institute for tenure of 24 - 30 months, Management Preceptors develop and teach courses to members of management. This approach not only allows managers to learn from those who have excelled, but provides the Preceptors with the chance to become immersed in the practices of management. At the end of their Leadership Institute contract, Preceptors move back into the mainstream of management with fresh perspectives and a solid foundation for

expanding their management responsibilities. The compliment of men and women rotating through the leadership Institute as Management Preceptors is deemed the most critical factor in the Institute's success. It is through their faith, pride and commitment that the Institute fulfills its mission.

Curriculum is based on experiential learning with a direct application on the job to management practices and principles in leading people. It reflects the culture, norms and philosophies unique to Federal Express. To capture this unique culture, the Leadership Institute offers a diversity of courses. The three basic areas of the curriculum are core management principles, outdoors based learning, and electives. In addition to these courses, the Leadership Institute produces an instructional Leadership Series broadcast on FXTV each month.

The Leadership Institute has become not only an educational institution; it is also and perhaps more importantly, a catalyst for organizational change and a developer of the management team. The Leadership Institute is committed to providing a forum for people to speak out, search deep and reach high, that they may become outstanding leaders for Federal Express. It is the management difference that causes Federal Express to excel; it is the Leadership Institute that keeps the flame --- the spirit --- alive.

Leadership Institute Core Management Courses

Management Principles I

Designed to be the starting point for a management career with Federal Express, this class creates an awareness of the behaviors that a manager needs to model to successfully survive the rigors of leading workgroups. This program focuses on many of the leadership qualities and management practices critical to a manager's success at Federal Express. The benefits of attending include a better understanding of Federal Express culture, philosophy and values as they relate to daily business activities. The goals and objectives for this course are divided into four major areas: *Transitions, Corporate Expectations, Corporate Culture and The Big Picture.*

Transition

Goal: To help deal with the personal and professional consequences of movement into management.

Objectives:

- Describe what to expect upon movement into management.
- Identify the changes that are or will be taking place because of movement into management, particularly in the following areas: relationships, role at work, life balance, image, skills and knowledge.
- Describe the possible benefits, costs and pitfalls relative to the change brought about by the move into management.
- Identify ways/methods of ensuring levels of success or "getting off on the right foot" as a manager.

Corporate Expectations

Goal: To help in understanding the requirements of being an effective manager and leader at Federal Express.

Objectives:

- Model the traits of an effective leader using the five requirements of management and the ten leadership traits.
- Explain and apply the elements of situational leadership.
- Explain and apply the principle and underlying assumptions of servant leadership contrasted with other leadership styles.
- Explain and use the elements of the communication model.
- Understand and apply the principles and practices of effective communications.
- Appreciate the responsibility to act in accordance with corporate values in the absence of direct policies and procedures.
- Understand the need for accurate and timely information.

Corporate Culture

Goal: To help to understand and appreciate the role of a manager in preserving, promoting and enhancing the Federal Express culture.

- Objectives:
- Explain the philosophy underlying the Guaranteed Fair Treatment Procedure and the rationale, which is used for decision making.
- Explain the philosophy underlying the Survey Feedback Action Program.
- Introduce the Leadership Effectiveness Scale and its use in the quality action plan.
- Explain and understand why everyone's job involves first and foremost creating and keeping customers (both internal and external).
- Explain why the People-Service-Profit philosophy is the right thing to do and a good business practice.
- Describe how application of the People/Service/Profit philosophy has evolved as the company has grown and the competitive environment has become more intense.
- Explain the basis factors affecting our company's profitability.

The Big Picture

Goal: To understand the "big picture" and how Federal Express's five strategic goals support the company's vision.

Objectives:

- Explain the evolution of Federal Express (historical perspective and growth).
- Explain the forces and factors driving our global expansion.
- Describe how demographic trends, legal requirements, social pressures and our corporate philosophy will affect staffing and other management practices.

- Understand why the five strategic goals are so important and how they apply to particular work areas.
- Understand why communicating the Federal Express vision is so important.

Management Principles II

Designed to help participants explore the various dimensions of leadership and issues facing the corporation, this course is targeted to the senior managers. Through experiential activities and group discussion, participants share knowledge and gain insight into such topics as: teamwork, risk taking, diversity and situational leadership. Team Leadership helps senior managers build upon the skills and talent that they already possess and discover those that are not readily visible.

Goals and Objectives

Goal: Understand the requirements of an effective senior manager and team leader at Federal Express.

Objectives:

- To be able to explain and demonstrate the principles of Situational Leadership.
- To be able to model the five skills of management.
- To explain the benefits and requirements of effective team building (synergy, collaboration, interdependence).
- To be able to apply the principles of Servant leadership to the role of senior manager.

Goal: Clarify the senior manager's role in keeping the P-S-P philosophy alive in a dynamic, global environment.

Objectives:

- To be able to establish a plan for effectively addressing the impact of Workforce 2000/ADA on your organization.

- To be able to effectively communicate the factors that affect Federal Express's financial performance.
- To be able to define and apply the principles of service quality including sales, customer service and 100% customer satisfaction.

Goal: Understand the need for communicating the Federal Express vision and rationale for corporate strategic direction.

Objectives:

- To be able to communicate the Federal Express vision and rationale for the corporate strategy direction.
- To be able to explain and provide the rationale for global expansion.
- To develop an action plan for improving team effectiveness in your organization.

Management Principles III

Managing the System is designed for managing directors as a forum for evaluating their leadership approach, increasing their knowledge of Federal Express as a system and reinforcing their role as managers of the system. Using a workshop format, managing directors define a vision for their own organizations and are encouraged to further develop and communicate their vision as a means for empowering employees to achieve organizational goals and objectives.

Goal: Understand the dimensions of effective leadership in our corporate environment from situational, servant and ethical leadership perspectives.

Objectives:

- Review and compare situational and servant leadership styles.
- Evaluate "Situational Leadership Questionnaire" results and feedback.
- Address the implications of ethics in executive decision making.
- Define potential areas for improving leadership effectiveness.

Goal: Assess the current business climate from global economic and social perspectives and its impact on corporate strategy.

Objectives:

- Review and understand global economics and social environments.
- Evaluate corporate financial performance.
- Discuss the implications of managing diversity within Federal Express.
- Evaluate corporate strategy and impact on department/district plans.

Goal: Explore the power of vision as a compelling force in achieving organizational goals and objectives.

Objectives:

- Describe and understand the Federal Express vision, both past and present, and its impact on empowering employees to achieve goals and objectives.
- Develop and communicate a vision for the department/district that supports the Corporation's vision but contains local content and purpose.

Goal: Evaluate the status of quality improvement at Federal Express and the role of managing director as innovator versus implementer.

Objectives:

- Review and compare approaches to quality improvement using Federal Express case studies.
- Experience "break-through thinking" in problem solving and decision making.
- Develop possible solutions to business challenges/opportunities faced by Federal Express.

Leadership Institute Elective Courses

Diversity: The Leadership Challenge

This four and one-half day class is designed to afford participants the opportunity to explore diversity as it relates to the corporate environment in general, while being Federal Express specific. Topics such as gender communication, racism, and workforce 2000 issues are examined in detail.

As with all Leadership Institute courses, this class draws from participant interaction and employs a hands-on approach to accomplish its course objectives.

Goal: To help participants manage people of all types and value the differences they bring to the workplace.

Objectives:

- Identify differences among employees and explain how those differences may or may not affect performance and relationships in the workplace.
Understand the danger of labeling people and the difficulty of characterizing people along a single dimension.
- Examine the differences which have a significant impact in the workplace (including racial and gender differences) and determine how to relate to those differences.
- Explain the consequences of not valuing and utilizing the different styles of problem solving and communication between genders.
- Examine the psychological and societal beliefs regarding gender differences throughout history and various cultural perspectives.

Objectives:

- Explain the implications of demographic trends and relevant government regulation which support the need for improved management of diverse workgroups.
- Analyze the Workforce 2000 statistics and determine what current management actions are necessary in order to prepare for the future.

- Understand the responsibilities and liabilities of management in light of the Civil Rights Act 1991.
- Understand the provisions of the Americans with Disabilities Act and determine what management actions are necessary to ensure equal opportunities for all persons.
- Compare the percentage of minority and female representation in the current American workforce and the Federal Express workforce.
- Realize that the effective management of a diverse workforce is necessary to ensure continued growth and success of any business operating in today's environment.

Objectives:

- Describe the costs and benefits of managing a diverse workforce. Determine the changes that are needed in management styles in order to accommodate the needs of a diverse workforce and evaluate what impact those changes will have in terms of time and money to the manager and to the corporation.
- Identify areas within the Federal Express system in which managers can have an impact on reducing/eliminating barriers to minorities and females.

Objectives:

- Examine and evaluate behavior toward others to determine ways to avoid discriminating against, prejudging or isolating others.
- Evaluate your actions, attitudes and behaviors in regard to relationships with protected groups of people.
- Examine subtle biases in the way men and women perceive communication styles between the genders.
- Examine and determine the basic cause of racism in the United States, which leads toward a conclusion of ownership for each participant, regardless of race or gender.
- Realize the power of prejudicial thinking and determine its impact on management decisions.

- Examine stereotypical beliefs and their foundations, specifically in the roles and capabilities of women and men.

Objectives:

- Explain the application of our People/Service/Profit philosophy in managing a diverse workgroup within a world-class corporation.
- Determine what aspects of the People/Service/Profit philosophy support diversity.
- Determine how valuing diversity will enable Federal Express to become more productive and competitive in a global market.
- Define "respect for others" as cited in the Manager's Guide and how it relates to job performance and problem solving in a global corporation.
- Examine the Federal Express culture and determine if there are any self-imposed barriers, which prevent progress by females and minorities.

Objectives:

- Translate the insights gained from this class into a personal contract stipulating what can be done to be more responsive to the needs and interests of female, minority and disabled employees. Areas of concern for action include recruiting, hiring, promoting, coaching, mentoring, assigning work and reviewing performance.
- Record daily observations/reflections throughout the week.
- Determine how the things discovered can translate into specific tasks and behaviors affecting your management style.
- Cite specific areas in the workgroup, which need improved support and development.

Participative Leadership

This highly practical course focuses on management practices that produce employee involvement and commitment. Participants examine effective participative



management principles used in successful businesses and are challenged to apply the concepts to action plans for their own operations.

Goal: To provide a conceptual foundation demonstrating why participative management must be practiced to achieve outstanding results in today's demanding and competitive business environment.

Objectives:

- Describe the current demands for quality in today's competitive business environment.
- Identify the need for management to change not only attitudes and expectations about employee involvement, but also the very nature of work itself.
- Understand that a manager's function in an environment that demands quality, competitiveness, and performance must change from the traditional controller to enabler and empowerer.

Goal: To create awareness that management's perceptions/behaviors have a direct effect on the success, or failure, of participative initiatives.

Objectives:

- Experience the effects of management's own presuppositions and expectations about employee empowerment on workers' involvement and productivity.
- Discover the latent potential of employee involvement that often goes untapped due to management's beliefs and behaviors.
- Discover the most likely causes for failure of employee involvement falls squarely on management's shoulders.

Goal: To reinforce the skills necessary to manage participation, develop awareness of common problems, which arise, and provide managers understanding of the key elements necessary to establish a participative culture/environment.

Objectives:

- Identify the common causes for failure of employee involvement efforts.
- Create a participatory climate at work by a truly integrated systems approach to motivating people.
- Create an environment at work that balances the need for effective information and accounting systems with the desire of most people to make meaningful contributions.

Other Leadership Institute Elective Courses include Exploring Leadership, Exploring Teamwork, Team Awareness Program, Ethics, Beyond Unions, Coaching for Commitment, and Seven Habits Workshop.

Leadership Series FXTV Broadcasts

Each Month the Leadership Institute, in conjunction with Employee Communications, produces an instructional broadcast covering topical issues pertinent to management practices. With the internal television network, FXTV, the Leadership Institute is able to reach the total management audience of Federal Express, both domestically and internationally. Previous topics include sexual harassment, time management, communication, benchmarking and coaching.

A Management Preceptor who is joined by various guests each month hosts each broadcast. When appropriate, the program is broadcast live from the studio to allow managers to call in and get "real time" answers to their questions/concerns. Each program is complete with an accompanying study guide and electronic proficiency test in ScholarTeach. Upon successful completion of the test, managers receive three hours of internal training credit toward their forty-hour yearly requirement for management training. (Federal Express)

Corporate Leadership Council

Training Benchmarks (Corporate Leadership Council 1-8)

In November 1996 the Corporate Leadership Council interviewed office managers and administration personnel at five United States Corporations. All participating companies employ fewer than 7500 employees and generate less than \$2 billion in annual sales revenue in predominately the service industry and one in the information technology industry.

Research Findings

What is the average amount of training received per employee across a one-year period? The average annual amount of training that employees receive is presented in the following table.

Table 2
Average Annual Amount of Training
Completed by Employees

<u>COMPANY</u>	<u>AVERAGE AMOUNT PER/YEAR</u>
Company A	40 Hours
Company B	45 Hours
Company C	One Week
Company D	Less than 2 years tenure---3 weeks More than 2 years tenure---2 weeks

Source: Corporate Leadership Council "Training Benchmarks." Fact Brief #222-030-097. (Nov. 1996): 3.

What is the typical percentage division between the amount of employees' corporate training (i.e. "soft" skills, such as management and leadership development) and skills training (i.e. industry-specific training)? The percentage

division between employees' corporate training and skills' training is outlined in the table following.

Table 3

Division between Corporate and Skills Training

<u>Company</u>	<u>Corporate Training</u>	<u>Skills Training</u>
Company A	50%	50%
Company B	10%	90%
Company C	Department Group Leaders: 60% Chemists: 20%	40% 80%
Company D	Approximately 67%	Approximately 33%
Company E	20%	80%

Source: Corporate Leadership Council, "Training Benchmarks." Fact Brief #222-030-097. (Nov. 1996): 6.

How does the company address the loss of productivity associated with employees attending training? All profiled companies concur that the initial productivity loss due to training is minor when compared to the potential increase in productivity after training. Four profiled companies generally do not address the loss of productivity, while Company "A" attempts to schedule training classes during less busy periods.

Does the company maintain a written policy regarding the amount of training employees must complete? Three profiled companies maintain written policies, while Company "C" and Company "E" do not. (Corporate Leadership Council, "Training Benchmarks" 1-8)

State-of-the-art Learning Centers (Corporate Leadership Council 1-9)

In March 1995, the Corporate Leadership Council interviewed training and human resources personnel at five United States companies that maintain learning or

training centers. These individuals discussed state-of-the-art learning facilities housed at their respective companies' training centers.

The Corporate Leadership Council contacted several additional organizations—including General Electric, Sprint Corporation and Texas Instruments—with reputations for having reputable training and learning centers. It was found that while these organizations maintain progressive training practices, few house state-of-the-art technology for training applications at this time. Some focus primarily upon instructor-led training; others are currently experimenting with or are conducting pilot programs that incorporate multimedia training, interactive satellite, CD-ROM curricula and other state-of-the-art equipment. Organizations from the latter group note that they have not yet determined the appropriate place of technology in effective training efforts.

Members of the Council staff also contacted universities in an effort to identify state-of-the-art training and education facilities. Contacted universities did not house such facilities, often due to budgetary constraints.

The companies in the study employ more than 60,000 people and generate sales revenues from \$5 billion and \$20 billion.

Research Findings

The following represent organizations using state-of-the-art learning centers.

Schwartzenegger Company

Schwartzenegger Company maintains three separate operating units, each of which maintains its own learning center and education program. One of these units maintains a state-of-the-art learning center. In 1991, before investing several million dollars upgrading learning center facilities, the company conducted over 96% of its training in a classroom setting. At the time of this study only 36% of the time training is conducted in a classroom and the remainder of training is accomplished through Schwartzenegger's learning centers. Between 1991 and 1994 the company increased

its training hours from approximately 20,000 hours per year in 1991 to approximately 250,000 hours per year in 1994. Incidentally, the company experienced a 53% decrease in cost per unit of training at that same time.

The company maintains 22 learning centers nationwide, which are interlinked via a unique mainframe tracking system. The system tracks all student/user, computer, vendor, inventory and contracting information associated with its learning centers. The company utilizes a variety of media for training employees, including interactive video, CD-ROM, audiovisual connection, interactive satellite, computer-based training and text and audio materials. In addition, these learning centers operate on a "just-in-time" principle whereby administrators monitor utilization of and demand for different types of training and acquire additional facilities and support as needed. They strive to equalize supply and demand so that students need not wait long periods of time for desired training. Schwartzenegger utilizes 171 different vendors and technology providers. Approximately ten to twelve of these vendors provide about 75% or 80% of their needs. (Corporate Leadership Council, SOTA Learning Centers 2-3)

Segal Company

Before opening its Training and Development Center in July 1994, Segal conducted extensive research of more than 50 leading training facilities in the United States to benchmark training practices and obtain ideas for their own facility. Segal has 70 classrooms, each equipped with individual temperature controls, ergonomic seating and overhead video recorder and television monitors. All classrooms have double rail systems for posting flip charts, wipeboards and projection screens. In addition, they have the capability for future voice/data/video hook-up and maintain access to breakout rooms for team interaction. Their two observation rooms, equipped with one-way mirrors are used for focus groups pilot training programs and maintain the capability for future video conferencing. There are ten computer labs, each seating 15 people. All computer labs contain instructor platforms, instructor

workstations with laser disks, video recorders and 60" diagonal SONY super VGA computer screens linked to instructors' monitors, state-of-the-art IBM computers, laser printers, sound insulation and sophisticated security systems. Another unique item is the 120-seat multi-purpose auditorium style room that can be divided into four smaller rooms. There are two viewing rooms for small groups to review training videos. Their self-instruction lab boasts 70 independent workstations, network supported and equipped with a computer, video recorder and interactive video laser disk. Three facilitators staff the instruction lab. If all this is not enough they have storage rooms, lounges and a special events room.

Segal uses its Training and Development Center for Technical Training, Computer Applications Training, and Management and General Business Training which includes communication skills, supervisory and management skills, team-oriented problem solving, recruiting, interviewing and selecting employees, secretarial and administrative skills, training and facilitation skills, and general business skills. Segal offers both instructor-led and self-instructional training courses. Some of Segal's computer applications training courses and many of its technical training programs are self-paced, self-instructional programs.

Segal Company also established a satellite network in 1994 that includes all of Segal's 6,000 sales locations in the United States and Canada. Currently, the company is utilizing this interactive satellite to train site staff members regarding technical and sales innovations. The satellite delivers live, instructor-led courses via one-way video and two-way audio transmission. Hence, instructors cannot see trainees but can ask them questions. Both instructors and trainees at all other remote sites can hear trainees' answers.

Segal supplements this satellite distance learning with interactive video and traditional classroom training at its learning centers. The manager of Segal's satellite network system predicts that distance learning may expand from meeting rooms at Segal's sales locations to personal computers at employees' desks. Beyond that, distance learning might reach a point at which training can be broadcast to

employees' home television sets, with touch-tone telephones serving as response keypads. (Corporate Leadership Council, SOTA Learning Centers 4-6)

Stallone Company

Stallone Company maintains a state-of-the-art learning facility with a 220-room hotel operated as a high-tech dormitory for learning center participants who are staying overnight or for several days. The learning center includes six amphitheater-style classrooms, four "team rooms", 17 break-out rooms, four company-specific equipment laboratories, an auditorium, a library and faculty offices for 30 full-time instructors recruited from field operations. Stallone Company offers coursework in company operations, management development and interpersonal skills training.

Stallone's amphitheater-style rooms are equipped with rear-projected video and slides as well as reel-to-reel and CD audio systems. All students are linked to instructors' podium-mounted computers via electronic keypads. Instructors who wish to determine students' understanding of course material can pose impromptu multiple-choice questions to which students can respond on their keypads. Instructors can then look at computer readouts of students' answers to identify gaps in comprehension and adjust instruction accordingly. Electronic keypads are also used for answering paper-and-pencil tests, allowing the system's computer to correct tests and print scores within ten minutes. Electronic keypads are also utilized for tracking attendance and developing seating charts. Instructor podiums include CCD projection cameras, toggle switches for advancing, stopping and restarting slides, video and audio, and timers for tracking session progress and limiting exercises to allotted time periods. Video cameras record sessions for instructor reviews and critiques.

Stallone's training centers four team rooms—where students practice role-plays—can be sectioned into four separate bays, each of which has a video camera focused upon it. Using tabletop controls, students can adjust cameras and the volume on the

group's wireless microphone, and can replay videotaped exercises. Television monitors mounted into the walls of each bay can take remote feeds from other rooms, from central sources and from satellites.

Stallone Company is capable of performing simultaneous interpretations of 20 languages per class. Both classrooms and teamrooms contain at least two built-in translation booths. Stallone maintains a pool of approximately 60 interpreters who work for the company on an as-needed basis. Stallone trains all interpreters on course material so that they can monitor and provide running translations of class proceedings. Interpreters listen to classroom audio through wireless and ceiling-mounted microphones and provide translations through an infrared audio-projection system. This system includes 10 different language channels to which non-English speaking students can listen via wireless headsets.

Stallone's training center also maintains internal television channels, which broadcast a constant series of instructional and informational videos. Stallone Company does not currently utilize multimedia or interactive satellite for training purposes. (Corporate Leadership Council, SOTA Learning Centers 6-7)

Connery Company

Connery Company's training facility contains soundproof classrooms that are wired for receive-video at each student's desk and for transmit-video from three locations at the front of each room. All classrooms include projection units at the front of the room with dropdown screens and several video feeds that accommodate a variety of systems. Some classrooms also include rear projection screens. Connery Company has wired classrooms so that each student can be simultaneously connected to separate networks, systems, video feeds and data lines. Classrooms are wired back to a central patch panel room, which maintains multiple data, feeds, video feeds and telephone connections. All training locations and classrooms are technologically interconnected.

Connery Company utilizes an interactive satellite system to conduct distance learning classes. Instructors teach courses from Connery's training headquarters. Students utilize key response pads to alert instructors if they have questions or do not understand particular topics. The satellite system maintains one-way video and two-way audio capabilities.

Connery Company utilizes two-way audio and video for teleconferencing. In addition, the company offers some technical training through multiple-media, including CD-ROM, interactive video and computer-based training. Generally, field maintenance personnel carry laptop computers rather than training books and manuals. These individuals often download training courses and programs onto diskettes which they then transfer to and run on their laptop computers.

Connery utilizes audio training for field sales personnel. All company cars include audio cassette players with which salespersons can listen to cassettes that include information regarding Connery's competitive position and strategic business goals.

Connery Company notes that while high-tech training is certainly useful in many situations, the company has found that employees tend to gravitate toward live instructor-led lecture labs, where they can interact personally with instructors and students. In addition, Connery has found that even when it can provide alternative training media, employees often encounter difficulty allocating their time to complete training. (Corporate Leadership Council, SOTA Learning Centers 8)

Van Damme Company

Van Damme Company developed its on-site training and education center in response to a growing need to keep its employees' skills current in Van Damme's core businesses. Van Damme's learning center includes 16 classrooms, two auditoriums, seven computer laboratories and 40 "break out" rooms for small groups of between six and eight people. Approximately half of the center's 16 classrooms are equipped with computer projection systems. Van Damme offers both technical and "soft skills" courses to employees, customers and suppliers. The majority of

courses that Van Damme offers are instructor-led and make use of flip charts and other visual learning aides; some courses are offered via CD-ROM.

Van Damme's training center contains one teleconferencing room that includes two-way video and two-way audio capabilities. In addition, Van Damme Company maintains a satellite distance learning program through which individuals can enroll in university courses and earn masters-level degrees. As part of its distance learning program, Van Damme partners with the Colorado-based National Technology University to broadcast engineering courses on the latest "cutting edge" technology from universities throughout the United States. Some courses are broadcast live; in these cases, students can contact instructors by telephone to ask questions or clarify concepts. For those classes that are pre-recorded, instructors are required to hold specified numbers of office hours per week during which students can call and ask questions. The National Technology University distance learning program enables students to earn their masters' degrees. Van Damme employees discuss with their supervisors whether or not they will take satellite classes during company time. Van Damme also broadcasts live classes from a nearby technology-oriented university. In some cases, professors from this university teach courses on-site at Van Damme. (Corporate Leadership Council, SOTA Learning Centers 9)

Conclusion

In conclusion, the graph following identifies the six major subject corporations and the Prototype used to maximize their university's contributions to achieving corporate objectives. The two fast-food organizations, McDonalds and Chick-Fil-A, both believe they have winning operational formulas and elect to reinforce and perpetuate those operation methods. However, both companies recognize that human development needed to achieve peak performance requires skills training beyond traditional operations training. Both organizations are providing progressive human skills training to achieve peak individual performance.

Table 4

Prototypes to Achieve Corporate Objectives

<u>COMPANY</u>	<u>PROTOTYPE I</u>	<u>PROTOTYPE II</u>	<u>PROTOTYPE III</u>
	Reinforce/Perpetuate	Manage/Change	Drive/Shape
McDonalds	X		
Dial		X	
Chick-Fil-A	X		
Motorola			X
Saturn			X
Federal Express	X		

Source: Information compiled by Patrick J. Cooney from "The Three Prototypes of Corporate Universities," by Anthony J. Fresina (1997).

Federal Express is also doing a great job of reinforcing the FedEx way worldwide. As was noted earlier, it is a whole new ball game at Federal Express. This organization believes it has a winning formula and spends significant resources to reinforce and perpetuate its management philosophies. FedEx also goes beyond operations training and has a core curriculum complimented by elective courses that are designed to improve human skills. Back in the early 1980's Federal Express monopolized Holiday Inn University in Olive Branch, Mississippi. It used this facility for human interactive skills training.

The Dial Corporation utilizes vendors to provide the latest skill development to manage and implement change in company culture. They made a transition from Prototype I in the early 80's to currently using Prototype II. Whereas, FedEx, McDonalds, Chick-Fil-A, and Saturn believe it is in their best interest to use employees as faculty. Dial has taken the opposite approach and has just one person working with vendors to provide training.

Prototype III is a bold step that doesn't happen very often. Motorola and Saturn are innovative organizations noted for non-traditional business practices. Both organizations rely on their university to drive and shape the corporate culture. Saturn boldly states they are a different kind of company making a different kind of car. Their training and development practices facilitate their difference to enable them to compete. Motorola is also noted for innovation and aggressive marketing. Dr. Gerald D. Sentell believes if an organization is going to be successful, value added services must be wrapped around high margin products before product margins dwindle to a commodity. (For example, Motorola has developed a combination cellular phone, pager and walkie-talkie in one unit. Because customers are willing to pay more for enhanced benefits, higher margins can be obtained. Motorola Universities are used to develop employees, suppliers and retailers, to capture high margin potential before Endemic Over-capacity occurs. Endemic Over-capacity means that competition will soon duplicate extra-value services and high-value products and will drive down margins. (Sentell)

During this research, two studies conducted by the Corporate Leadership Council were discovered. Most companies in the study provided an average of about 40 hours of training annually. This, of course, was not the case with Saturn and their 92-hour requirement and, for example, the unlimited training potential of Chick-Fil-A and Dial. Another finding of the Council that seems to support the direction taken by the subject organizations was in the division of corporate training versus skills training. Current research as well as the Council's clearly shows most companies are devoting major amounts of development dollars to human skills training for its management teams. (Corporate Leadership Council, Training Benchmarks 4-6)

The other Corporate Leadership Council study pertained to state-of-the-art learning centers. At the time of the study, few organizations surveyed had not yet determined how to appropriately incorporate technology in effective training efforts. This was probably due to the fact that improvements in technology were happening faster than companies were willing to allocate budgets to keep up with the advances.

Again, current research seemed to support facilities being upgraded after five or so years. Much technological advancement happens in a five year span. (Corporate Leadership Council, SOTA Learning Centers 1)

One last conclusion is that companies today are more likely to partner with colleges and universities to provide employee education either on campus, at the company worksite or through technology and distance learning.

Executive Summary

1. Introduction

2. The Importance of Employee Education

3. Current Research on Employee Education

4. The Role of Technology in Employee Education

5. The Role of Distance Learning in Employee Education

6. The Role of Partnerships in Employee Education

7. Conclusion

8. Appendix

9. Bibliography

10. Glossary

11. Index

12. Acknowledgments

13. About the Author

14. Contact Information

15. Copyright

16. Disclaimer

17. Privacy Policy

18. Terms and Conditions

19. Site Map

20. Feedback

21. Help

22. Site Map

23. Feedback

24. Help

25. Site Map

26. Feedback

27. Help

28. Site Map

29. Feedback

30. Help

31. Site Map

32. Feedback

33. Help

34. Site Map

35. Feedback

36. Help

37. Site Map

38. Feedback

39. Help

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140. Feedback

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Chapter III
METHODS AND EVALUATION

Materials

The objective of the project is to develop a corporate university for the Bi-State Development Agency. Critical to the success of this project is the partnering with a local university such as Lindenwood University. The following objectives give a better understanding of the breadth and depth of this exciting undertaking. To the best of the author's knowledge there is no prototype in the mass transit industry at this time. It is one of the agency's goals to implement this concept so the industry can replicate it and gain from the many planned benefits.

Plan Objectives

As a result of attending the Bi-State Development Agency University the participants will be able to:

1. Receive a Bachelors Degree in Transportation Management from an accredited university.
2. Develop practical leadership skills to make their contributions to their employer more profitable.
3. Understand both the day-to-day operations of a multi-modal transit agency and the long-range challenges and growth opportunities.
4. Understand the interconnection between departments of a multi-modal transit agency.
5. Participate in a funding campaign drive by making a minimum of three public presentations concerning mass transit.

6. Apply practical learning experiences to their job, no matter what position they hold in a transit agency.

Partnering With "Profs"

As mentioned earlier, one of the most critical elements driving the successful accomplishment of this plan is the Agency's ability to partner with a local institution and their staff of professors. In order to achieve objective number one, the Agency must seek a local college or university which is interested in a joint venture of sorts. The benefit for the institution is the recognition of being able to offer a degree program in the field of transportation management. This not only equates to increased income from Bi-State students; it will provide the institution with an entire new curriculum to market to all other transit properties via the Internet or through distance learning. This project should also prove to be of particular interest to Trans World Airlines. Since St. Louis is headquarters for TWA the institution could call on TWA to consider this same type of partnership approach to learning. TWA's intervention in this project would add a significant benefit from their high standards in hospitality and customer service. Bi-State would also benefit from this increased partnership. Students would be exposed to new approaches to customer service and methods of providing hospitality. Having a local "for profit" partner would also bring additional resources necessary for program growth and expansion. Think of the possibilities that could be offered in researching "best practices". The potential for on-site field trips to companies literally all over the world is almost endless and certainly could prove economical with TWA or a partner.

There are a multiple number of benefits that Bi-State will derive from the successful implementation of this project.

1. Employee students will get more than a fine theoretical education. They will get the benefit of a practical real world, industry specific education that will translate to increased knowledge, skills and abilities for the individuals.

2. This improvement in human talent will quickly generate stronger performance for the Agency and increased job satisfaction for the individuals. As the results improve at Bi-State the transit industry will take notice of the impact this "partnering with pros" has had and will generate significant interest and desire to become a part of this unique approach to improving people performance through education in transportation management.
3. The structure of the project will facilitate increased leadership skills for the students as well as the Bi-State instructors. The educational experience will be designed around maximizing adult learning theory. Students will actively participate in vigorous group discussion, role-plays, "real job" case studies, practical research projects, oral presentations to management and student groups, as well as traditional written presentations. Wherever possible the curriculum will offer practical opportunities to build leadership skills through real world exposure to people-to-people issues. This increased skill development will translate to yet another opportunity for improved on-the-job performance for the Agency.
4. While developing leadership skills the students will be exploring various departments of a successful multi-modal transit agency. They will learn the interconnection between departments and how one serves the other. This experience will provide great exposure to increase the understanding of the day-to-day operations of various departments. The result to Bi-State will be phenomenal. One major opportunity the Agency has is to develop more of a team approach to work. Increased awareness of the sum of the parts of the whole operation will translate into better understanding of everyone's mission and responsibilities. People will be able to see what is now viewed as a puzzle. They will understand how everyone's job interconnects to provide service to the community. This individual understanding will become foundational to facilitating teamwork.
5. Public speaking is a skill every college student should be required to improve. A prerequisite to graduation will be to make a minimum of three public presentations

concerning mass transit. These presentations will substitute for an equal number of required colloquiums. Bi-State will benefit from the community gaining a better understanding of its mission and issues facing the growth of MetroLink. The student will benefit from exposure to new topics and improved platform skills.

6. All of the above mentioned benefits will equate to total performance improvement, no matter what job the student has in the Agency. The more knowledge an employee absorbs the chances for improved decision making dramatically increases.

Dual Deans

The Dean of the Lindenwood University Individualized Education Program (LUIE) will maintain his/her responsibilities with regard to curriculum requirements and so forth. The only additional duties will be to partner with the Agency Dean of Bi-State University. The Division Director of Human Resources will assume the role of the Agency Dean. Responsibilities will be to work closely with the university to achieve their necessary requirements and work very closely with the Agency teaching staff. Particular emphasis will be placed on making sure the six objectives are being achieved. Ensuring that new and challenging adult learning concepts are utilized by Bi-State instructors will be another critical responsibility. These issues will be addressed through a series of vision casting meetings (see appendix), ongoing one-on-one coaching sessions, reviewing course outlines, and feedback from students.

Bi-State Development University Faculty:

Earlier in this paper the concept of partnering with professors was introduced. It is believed to be in the best interest of the Agency and the student's development to expand upon the idea of partnering with professors. While the agency has the utmost respect for the professional faculty at Lindenwood University, a point that can be concluded from the research is the need to develop internal trainers, or in this instance internal professors. Bi-State is blessed with an abundance of individuals with a Master's

Degree. Many of the individuals have or currently teach at the undergraduate level.

The faculty would have key instructors responsible for advising students in their area of expertise. Next is a partial list of potential internal professors that could add that important business perspective to the transit management classroom as well as a list of the advising staff.

Internal Advisors

The concept of a faculty advisor is a good idea and may benefit from adding a twist. While students are undertaking their 54 hours of General Education, the faculty advisor should be from the university.

Once a student begins taking the Transportation Management courses, they will be assigned to a BSDA faculty advisor. This will shift the responsibility from the university faculty and place the accountability with transportation management. Fellow employees have a vested interest in the success of the student and how that success will pay on-going benefits to the Agency.

This relationship will provide an opportunity for Agency managers to "mentor" fellow employees. The ability to schedule convenient advisory time should be enhanced due to the close proximity of the student and their in-house advisor.

Another benefit for both the Agency and the employee student will be the relationship that will be built from this advisor/advisee interaction. The mentoring process could last a career rather than a few semesters.

Every employee who takes advantage of Agency funded tuition assistance is required to submit an education plan. The Human Resources representative will assist the student in developing an appropriate plan that is customized to compliment current skills and experiences and ensure the educational plan provides a logical approach to achieving career goals. Faculty advisors will be able to take on some of this employee relations activity to help students implement realistic career and educational plans to increase their chances of landing further jobs of their choice.

Advisory Staff

<u>Name</u>	<u>Title</u>	<u>Discipline</u>
Patrick J. Cooney	Director, HR & LR	Dean, Bi-State U.
David N. Sanders	Specialist, HR & OD	Associate Dean
Nathan Kniker	Dir. Safety & Training	Associate Dean
Jeff Lee	Dir. Accounting	Accounting
Casey Jefferson	Mgr. Accounting	Management
Susan Stauder	GM Finance	Finance
Jennifer Nixon	GM Business Ent.	Marketing
Linda Hancock	Dir. Public Relations	Communications
Samuel Gradford	Dir. Diversity	Human Resources

Potential Instructors

<u>Name</u>	<u>Degree Status</u>	<u>Potential Curriculum</u>
Susan Stauder	M. Civil Engineering	ITM 333/545, ITM 430
Sterling Adams	MS. Government Admin	ITM 430, ITM 439
Jennifer Nixon	M. Public Policy Admin.	ITM 454, ITM 351
John Roach	M. Public Administration	ITM 454, ITM 439
Ronald Stephens	M. Management	ITM 370, ITM 371, ITM 357
		ITM 430, ITM 330
John Belgeri	M. Urban Planning & Industrial Safety	ITM 330, ITM 362
Janis Shetly	M. Arts	ITM 371
Nathan Kniker	MBA	ITM 370, ITM 362, ITM 361, ITM 360, ITM 359, ITM 357, ITM 333/545,

		ITM 331/544
Patrick Cooney	M. Human Resources	ITM 330/545, ITM 410, ITM 371, ITM 370, ITM 362, ITM 361, ITM 360, ITM 359, ITM 358, ITM 357, ITM 431/546, ITM 454, ITM 350, ITM 351
David Sanders	M. Industrial Psy. & Organizational Dev.	ITM 330/545, ITM 410, ITM 371, ITM 370, ITM 362, ITM 361, ITM 360, ITM 359, ITM 358, ITM 357, ITM 431/546, ITM 454
Barbara Beal	M. City/Regional Planning	ITM 333/545
Tom Sturgess	M. Arts	ITM 350, ITM 453, ITM 459
Sandra Shaner	M. Counseling	ITM 371, ITM 361, ITM 357, ITM 454
Linda Hancock	M. Media Com.	ITM 459, ITM 439
Craig Macdonald	MBA	ITM 330, ITM 430, ITM 360
Jeffrey Lee	MBA	ITM 200, ITM 308, ITM 213
Samuel Gradford	M. Social Psychology	ITM 358
Tina Votaw	MBA	ITM 330, ITM 430, ITM 360
Charles Middlebrooks	MBA	ITM 200, ITM 308, ITM 213
Casey Jefferson	MBA	ITM 200, ITM 308, ITM 213

In addition to the above individuals there are numerous students currently enrolled in master's level programs from a variety of disciplines. Part of the author's job would be to select quality instructors from the on-going list of graduates.

Tuition Assistance Enhancements

The current tuition assistance program provides for reimbursement of tuition at 85% up to \$5,000 per fiscal year. The LUIE program students actually receive 92½% of the published hourly charges. Books are the responsibility of the students.

Proposed changes to the program would included:

1. 85% tuition assistance for grades of an "A" or "B" and 75% reimbursement for grades of "C" and no assistance for "D's" or lower, with a maximum of \$5,000 per year.

2. 100% assistance for LUIE Transportation Management students who have completed their liberal arts requirements, with a maximum of the cost of 4 cluster programs.

3. Transportation Management Book Leasing Program would require students to purchase the books from the BSDU bookstore and sell them back to BSDU upon completion of the course for 75% of retail (sales tax not included), provided a grade of an "A" or "B" was achieved and books were in excellent condition. "C" students could sell their books to BSDU for 50% of retail. Then books would be resold to students for the next cluster provided the edition was still current.

Program Description

The LUIE Transportation Management degree will initially educate employees from Bi-State, a not-for-profit organization. Once established, it can be offered to other transportation organizations and to the general public. The program includes the curriculum content recommended by the American Assembly of Collegiate Schools of Business. It is designed for students already in management or those who aspire to take on management responsibilities in the future. The intent of the program is to expand

existing skills and to provide students with a strong liberal arts and professional transportation business education.

All LUIE undergraduate degree programs contain core requirements in the liberal arts. This is particularly important to the manager because it provides the opportunity to develop cultural, human, and theoretical understandings essential for successful business interactions and effective community leadership.

Throughout their careers at LUIE students gain practice in developing management techniques as they learn to write concise papers, make small group presentations, practice effective time management and communicate with fellow student-professionals.

The Transportation Management program requires 54 hours of General Education, 45 hours of Transportation Management, 26 hours of electives, three hours of public presentations and a culminating project. This paper will not focus on the general education requirements. It will only identify options for Transportation Management core curriculum and representation of selected electives.

Core Curriculum

Quarter I:

ITM 330 Principles of Management (3)

ITM 332 Management of Personnel Systems (3)

ITM 430 Management Policy (3)

Quarter II:

ITM 200 Principles of Accounting (3)

ITM 308 Management Accounting (3)

ITM 320 Principles of Finance (3)

Or

ITM 409 Special topics in Accounting (1-3) emphasis on not-for-profit quasi-governmental accounting practices

ITM 429 Special Topics in Finance (1-3) emphasis on not-for-profit quasi-governmental finance -practices

Quarter III:

ITM 350 Principles of Marketing (3)

ITM 453 Marketing and Planning

ITM 459 Special Topics in Marketing (3) emphasis on Mass Transit practices

Quarter IV:

ITM 211 Principles of Political Economy (Micro) (3)

ITM 212 Principles of Political Economy (Macro) (3)

ITM 412 Money and Banking (3)

Or:

ITM 419 Special Topics in Economics (1-3) emphasis on the political and financial impact of economics in Mass Transit

Quarter V:

ITM 360 Business Law (3)

ITM 323 Personal Finance (3)

ITM 420 Investments (3)

Or:

ITM 479 Special Topics in Investments (1-3) emphasis on investment practices in the public sector

Courses of Study

Management:

ITM 330 Principles of Management (3) Development of the understanding of organizations and of the decision-making skills required in management positions. Examination of the various concepts of management planning, organizing, motivating and controlling. The planning of goals, charges, progression of people and managerial value systems will be investigated.

ITM 332 Management of Personnel Systems (3) Designed to provide basic understanding of the field of industrial relations including personnel management and labor relations. Labor relations deals with those activities impacting on employees as members of a collective bargaining unit as they relate to management goals. Personnel management is concerned with those activities related to individuals and their employment and employers.

ITM 430 Management Policy (3) Development of the understanding of the top management views of organizations. Understanding the formulation and scope of general policy to direct the activities of the organization, including methods of determining objectives, developing plans to achieve objectives, measurement of results, reappraisal of objectives and ability to react to evolving situations.

ITM 439 Special Topics in Management (1-3) An intensive study of a timely and practical real world transportation management topic.

Accounting/Finance:

ITM 200 Principles of Accounting (3) A basic study of the financial aspects of asset resources including their nature, valuation, sources and uses in operations; transaction analysis within the accounting information processing system and cycle, and income and financial position measurements and reporting.

ITM 308 Managerial accounting (3) A course designed to provide students not concentrating in accounting with an understanding of the utilization of internal accounting data for management planning and decision making.

ITM 320 Principles of Finance (3) The fundamentals of financial management, which include planning, budgeting and control, also external sources and methods of capital acquisition. A study of the evolution, functions, and practices of the many types of financial intermediaries with which the firm must interface.

ITM 420 Special Topics in Accounting (1-3) An intensive study of practical accounting requirements in a quasi-governmental environment.

ITM 429 Special Topics in Finance (1-3) An intensive study of practical financial challenges facing quasi-governmental agencies.

Marketing:

ITM 350 Principles of Marketing (3) Defining the market function to provide an understanding of the macro and micro view of presenting goods and services to the users. The macro marketing view will encompass an interdisciplinary approach to the analysis of economic functions in which an organization offers its goods and services. The micro marketing view will analyze the organization's preparation, and methods and goals of presenting its goods and services in the marketplace. Emphasis is on the student gaining a working knowledge of the vocabulary, principles and theory of marketing.

ITM 351 Principles of Personal Selling (3) Selling principles and processes, industrial vs. personal selling, persuasive communication, selling vs. buying, time management. Sociological and psychological influences on selling and buying process.

ITM 352 Principles of Advertising (3) Advertising practices, techniques, and strategies, including copy-writing, media attributes and selection, media and marketing plans, advertising distribution and budgeting.

ITM 353 Principles of Public Relations (3) Introduction to the field of public relations, including attention to internal and external publics, media relations and practices, event planning financial reports and ethics.

ITM 354 Sales Strategies & Techniques (3) A focus on selling transit services as it relates to the marketing function in a quasi-governmental organization including sales strategies and implementation. Included are selected topics in selling techniques and tools, negotiation, advertising income development and performance standards. Practical real world demonstration by each student is required.

ITM 451 Consumer Behavior (3) Current theories and research on the behavior of consumers are studied from the viewpoint of marketing management decisions. Consideration is given to the behavioral science concepts underlying the study of consumer behavior and the use of theoretical and applied decision-making models.

ITM 452 Customer Relations (3) Principles and practice of customer relations, including history of consumerism, customer relations departments, identifying and responding to customer needs, developing skills in giving information, dealing with difficult customers, and developing a positive customer relations climate.

ITM 453 Marketing and Management Planning (3) Development of the ability to identify, organize and manage the marketing function in the organization with the other functional areas of the organization. Identify marketing problems, investigate alternative marketing solutions, and render decisions as a member of the marketing, management team.

ITM 454 Current Issues in Customer Service management (3) Using the case analysis approach, students will examine current problems in developing, delivering and maintaining good customer service. This will be accomplished through an extensive research, analysis and an improvement implementation plan presentation.

ITM 459 Special Topics in Marketing (1-3) An intensive study of a practical topic or marketing opportunity in a multi-modal transit property.

Economics/Money & Banking:

ITM 211 Principles of Political Economy (Micro) (3) The scope and method of economics. The market economy, demand, supply and the price system. Market structures, distribution of income, current problems that can be investigated by micro-economic analysis. Prerequisite: Sophomore standing.

ITM 212 Principles of Political Economy (Macro) (3) National income measurement and determination; consumption, investment and saving; the cyclical nature of economic activity; role of money and financial institutions, economic growth; international economic relationships.

ITM 412 Money and Banking (3) The nature and functions of money and banks. The development of the American banking system, the organization and functions of the Federal Reserve System, and monetary and fiscal policy.

ITM 419 Special Topics in Economics (1-3) An intensive study of a topic in economics as it relates to a quasi-governmental agency.

Business Law/ Personal Finance

ITM 360 Business Law (3) An introduction to the sources of law and the judicial function, contracts, agency and employment, partnerships and corporations. Federal regulations of business/health, including insurance, sales, commercial papers, real and personal-property, secured transactions, debtors' and creditors' rights.

ITM 323 Personal Finance (3) A study of consumer credit, interest rates, real-estate, risk management (insurance) income tax, estate planning and the application of same to the individual.

ITM 420 Investments (3) Presentations of the investment fields in theory and practice. A survey and analysis of particular types of investment securities and vehicles, public and relation stock companies, bonds, various types of securities, real estate, various government and private financial paper. A survey of the basis for investment decisions and the management of investment portfolios.

Electives

Using elective studies or focused projects within the core cluster, students will choose to create an emphasis within the transportation management degree in such areas as not-for-profit management, public relations, sales/marketing, business communications, human resource management, or Information Technology/Data Processing. In addition to the required core courses, students may select practicum electives that are related to core workplace practices, such as budgets and grants management, scheduling/planning/routing, purchasing and product management, operations management, project management, strategic planning, governmental affairs, research/program evaluation, customer service, maintenance management and public administration.

ITM 331/544 Total Quality Management (3) This course will explore the historical development of the quality movement within the organization, view management's role in creating a quality culture, examine cultural change tools such as the use of teams, benchmarking and cycle time reduction, look at the current quality drivers such as CP2, ISO 9000 and the Malcolm Baldrige National Quality Award.

ITM 333/545 Quality and Statistical Tools for Continuous Improvement (3) This course will focus on the quality and statistical tools used to implement a process of continuous improvement within the organization. Quality tools such as process mapping, nominal group techniques, and the like will be discussed. Statistical tools such as trends charts, control charts, tally sheets, scatter diagrams, histograms, and pareto charts will be explored.

ITM 431/546 Organizational Change (3) This course will explore the political, social and structural nature of organizations and how to change them. Organizational change models, tools and techniques are examined. Contemporary organizational change efforts will be analyzed using change models.

Information Technologies

ITM 305 Desktop Publishing in the Workplace (3) Using desktop publishing tools, students will design projects that meet personal and professional goals. The PageMaker page layout program is used.

ITM 463 Computer Based Information Systems (3) Survey of hardware components, software, varieties of systems applications, particularly for large organizations.

Introduction to current issues in computer technology: Office automation, artificial intelligence, etc. Individualized study in a selected issue as it pertains to a real world challenge.

ITM 445 Information Systems Projects (3) Computer based decision- making analysis and quantitative decision making methodology. Data evaluation techniques.

Human Resource Management:

ITM 357 Employee Supervision (3) This course examines the industrial environment and the role of the supervisor. It is directed toward the enhancement of managerial skills and includes a survey of current psychological literature on the subject of leadership.

ITM 358 Legal Issues for Human Resource Management (3) This course examines the various laws relating to the employer/employee relationship. Special emphasis will be placed on topics such as equal opportunity, affirmative action, grievance handling, hiring and terminations, training, questions of equity, labor relations, and other issues associated with the management of human resources.

ITM 359 Performance Management/Performance Appraisal Systems (3) Performance appraisal is mandated by the Civil Service Reform Act. This course examines its basic elements, including goal setting, writing behavioral objectives, individual and organizational performance measurement, coaching and counseling, and productivity improvement among both unionized and non-unionized employees. Specific emphasis will be reward systems and methods of positive discipline.

ITM 360 Adult Learning Processes (3) A study of selected methods and instructional techniques appropriate for the teaching of adults with a focus on the training and development area. Applications of adult development theory will be applied to the design development and evaluation of training programs and staff development.

ITM 361 Career/Staff Development (3) Students are introduced to career development programs in organizations and how they relate to the productivity of individuals. Focus is on the skills and concepts that will enable the student to design and implement staff development programs. Students also work on their personal career development and life planning.

ITM 362 Employee Training and Development (3) Specialized study of training in organizations, including needs analysis, learning theory, management development, and development of training objectives and programs. Methods of field-based research techniques and evaluation of training programs are also included. Projects and exercises supplement the readings.

ITM 370 Group Dynamics (3) Study of motivation, leadership, communication, morale, and intra- and inter-group dynamics, and decision making in organizations.

ITM 371 Conflict Resolution (3) Examination of causes of conflict in human interactions, including principles and techniques to diagnose conflict and to differentiate among types of conflict. Development of skills in leadership, group facilitation, team building and handling group conflict.

ITM 410 Labor Economics & Industrial Relations (3) A study of the labor force employment, wages, hours, and industrial conflict. Unions, collective bargaining, and labor laws will be given important consideration.

Practicum Options for Electives

The practice of providing credit for undertaking a practicum is not a new concept for universities. However, doing a practicum within your own company may be a new approach to a traditional education experience.

Transit Management students could, as an elective, take up to two practicums per year. The time spent doing the practicum would not be at the expense of a normal 40-hour workweek obligation. Nor would the practicum student be able to claim overtime since their work is for college credit and not for pay.

Here the students can really broaden their knowledge and skills in a real-life work environment. Specific assignments could be in scheduling/routing/planning, customer service, employee benefits, maintenance management, light rail operations and many other fields where traditional education normally does not become involved.

The LUIE Dean, BSDU Dean and the student advisor would jointly agree upon the practicum. Practicums could be worth from 3 - 9 credit hours and must be in an area not directly related to the student's current occupation. In other words this is not a means of offering credit for doing everyday work.

Sample Adult Learning Assignments

1. Understanding the interconnectivity between departments at Bi-State and how each department supports another. Students would be put into teams. Their individual assignment would be to interview certain members of the management team and develop an organization chart resulting from the interviews. Class presentations would be made using Power Point to show the results of their research.

2. Performance improvement teams could be given an opportunity to research a department to identify improved work methods, better ways to improve work process or developing recognition programs for improved employee performance. A research paper would be developed and a formal presentation to management would be made with the objective being to sell the manager on implementing their ideas. The team would follow-up with the implementers to ensure goals were achieved. Their grade may not be decided until goal achievement or significant progress was attained. This puts an increased practical spin on a student's college education.

3. A marketing class could do a research project on one of the services offered at Bi-State. The goal would be to develop and implement a successful marketing campaign. The grade would consist of how well the plan was formulated and the results of the plan (if appropriate).

These are just a few of the ideas that would prove beneficial to student learning and provide innovative ways to drive Bi-State's business. Just think of the motivational dimension this type of learning will provide students and the satisfaction of seeing the results of all the hard work put into education it will also provide them.

Public Speaking Requirements

The Agency recognizes the many benefits employees can gain through the development of public speaking or platform skills. It also recognizes that public speaking is usually one of the top three fears of most people.

This is why the Agency sponsors a Toastmasters Club. The full price of dues and fees are picked up by the Agency. Weekly 90-minute club meetings are held to provide skill-building opportunities for making presentations and receiving constructive developmental feedback.

Students enrolled in the Transportation Management program will also become members of the Agency's Toastmasters Clubs. The weekly over-lunch meetings will build individual skills, confidence and knowledge. The required three public speaking engagements will be accomplished through a team approach. A student will be teamed with a skilled presenter and both will address the public. This approach will lessen the fears associated with public speaking and not put the student solely in the spotlight.

The team presenter will contact the BSDU advisor so each presentation can be recorded toward achieving the requirement.

Transportation Management Culminating Project

The culminating project must be of a topic that will research and develop a practiced plan that will benefit the Agency directly.

Examples could include researching transportation needs of business locations and designing a plan to provide timely public transportation for their employees. Another could be adopting certain bus routes and researching ways to increase ridership with a marketing plan to achieve ridership goals.

The only real new twist in this program would be that all culminating projects must research and develop a real life plan that adds value to the Agency and the public.

Subjects

The goal is to use two very qualified individuals as evaluators of this plan. One will be a management teacher from the LUIE faculty and the other an organizational psychologist from the Bi-State faculty. The reason for these particular selections is because both are intimately familiar with Bi-State and both will provide a cutting edge perspective to adult learning.

Mr. Jim Monahan is a former employee of the Bi-State Development Agency. Jim held various responsible positions of authority during his tenure. Mr. Monahan was responsible for management development and also was a senior manager of the Agency responsible for running one of our service areas operations and maintenance teams. Mr. Monahan has been a management professor at Lindenwood University for over five-years. This combination of management expertise and intimate first hand knowledge of the Agency is winning formula for successful evaluation.

The second choice of David Sanders brings a fresh look into this project. David has been full-time at Bi-State for only three months. Mr. Sanders holds a Bachelors degree in Industrial Psychology from the University of Indiana and a Masters in Organizational Psychology from Southern Illinois University at Edwardsville. David's academic

experience will challenge the thinking behind this project as well as evaluate the benefits of the overall project. Mr. Sanders has been at Bi-State for only a short time but has been involved with conducting numerous focus groups and implementing various research surveys. He has a strong vision of where the Agency wants to be without any prejudice based on long term tenure.

Implementation Action Steps

1. Prior to meeting with the Dean of LUIE appropriate actions would be taken to research the company to identify potential students for Transportation Management degrees. If there were sufficient numbers it could be implemented in the fall of 1998. The Agency has over 110 students currently enrolled in various colleges. The vast majority of students presently attend Lindenwood.

2. Meet with the Dean of LUIE to present the plan for approval. This would be accomplished during the June of 1998. Presenting the qualifications of the prospective Agency faculty members would be a part of this meeting.

3. Meet with prospective internal faculty members to gain their commitment to teach in the area of career discipline. Commitment for teachers would be achieved by July 1998.

4. Based upon analysis of the curriculum to be presented, determine how many clusters could be taught on Bi-State property to encourage increased participation.

5. Work with the LUIE Dean to develop a process to measure the Transit Management degree program. This is something better dealt with at that time and will not be speculated on in this paper (see appendix).

Instruments

The purpose of the instrument is to provide a consistent structure for both evaluators to complete. Since both evaluators are, by design, from different backgrounds, it is

thought that having a structure would provide for commonality and consistency in feedback.

The design of the questionnaire is a simple rating scale to support the objective of commonality and consistency. Soliciting candid comments will remove the evaluator from consistency and open the evaluation to receive more creative responses and suggestions.

Procedure

The methods used in the evaluation questionnaire are designed to focus the evaluator in specific areas to ensure feedback on these areas is received.

A simple rating scale for the first part asks the evaluator to make judgements using a 1-5 rating scale. The rating of "1" equates to poor progress to a rating of "5" for excellent. This numbered rating scale will enable the author to ask follow-up questions as to why the issue was poor or excellent or somewhere in between. This approach will help in making the post-evaluation interviews more meaningful.

Basically the same principle is used in part two except the judgement is reflected by how strong the evaluator agrees or disagrees with the 12 statements. Again the author will use these answers to gain clarification in the post-evaluation interview.

The author anticipates the evaluators making comments. These comments will be probed for clarification and understanding.

The plan is to give the cover letter, questionnaire and the culminating project to each evaluator personally in order to review notes and expectations. At this time an interview will be scheduled (within 2-3 weeks).

Appendix A
COVER LETTER

May 4, 1998

xxxx xxxxxxxx xxxxxx
St. Louis, MO xxxxx-xxxx

Dear

Thank you for agreeing to read and evaluate my culminating project for my Masters Degree in Human Resources Management. We are scheduled to meet in your office at (TIME) on (DATE).

During this meeting you will receive the culminating project which includes the plan to implement Bi-State Development University with Lindenwood University. We will spend 20-30 minutes clarifying the role of evaluation instrumentation. Please have your calendar at the meeting so we can set up a 30-minute interview approximately 2-3 weeks from our first meeting.

The purpose of the post-evaluation interview will be for me to learn from you the strengths and areas of improvements for the project. At this time we will discuss your answers to a short questionnaire.

Again, (NAME), thank you for agreeing to be an evaluator. I look forward to seeing you on (DATE). Call me at 343-6146 should you have any sudden schedule conflicts.

Respectfully,

Patrick J. Cooney

Appendix B
EVALUATOR QUESTIONNAIRE

Evaluator Name _____
Title _____
Company Name _____
Address _____
Phone Number _____

After reviewing the submitted culminating project, please respond to the following questions and rate your response on a scale of 1-5 with 1 being poor and 5 being excellent.

Rating:

- _____ 1. The quality of the proposed plan takes into consideration the research cited in Chapters I and II.
- _____ 2. How practical do you view the overall concept of the plan?
- _____ 3. How practical is the planned implementation of BSDU?
- _____ 4. How would you rate the likelihood of other local transportation companies such as TWA or Union Pacific wanting to send employees to LUIE for a Transportation Management degree?
- _____ 5. Rate your opinion of the selected core curriculum.
- _____ 6. Rate your opinion of the optional electives.
- _____ 7. Rate the proposed BSDU faculty.
- _____ 8. Rate the proposed BSDU Advisory Staff.

- _____ 9. Rate the comprehensiveness of the entire plan.
- _____ 10. I would rate the chances of getting a local university such as Lindenwood College, interested in this partnership as . . .
- _____ 11. How do you rate the new requirements for the Transportation Management culminating project?
- _____ 12. I would rate the benefits to Bi-State Development Agency by adopting the project to be . . .

Please respond to the following questions with either "A" (agree) or "D" (disagree). You may elect to strengthen your response with a "+" or "-" sign.

- _____ 1. This approach is unique and something I am unaware of as being available in St. Louis.
- _____ 2. Bi-State Students who want a degree and though about a communications degree will see the benefit of a Transportation Management degree and will sign up for the program.
- _____ 3. The proposed new tuition assistance enhancements are a strong motivation to encourage participation in pursuing this degree over, say, a communication degree.
- _____ 4. This educational approach is likely to attract minorities and females.
- _____ 5. Should an employee leave Bi-State after receiving their Transportation Management degree, they will become more marketable than someone who has a communications degree.
- _____ 6. Having company "faculty advisors" provides the student with an added benefit over a college "faculty advisor".
- _____ 7. The adult learning aspect of BSDU is one of the program's strengths.
- _____ 8. This curriculum could be offered to other transit properties via distance learning and would be seen as a potential benefit for the company.

- _____ 8. This curriculum could be offered to other transit properties via distance learning and would be seen as a potential benefit for the company.
- _____ 9. No college or university would consider becoming a part of this concept.
- _____ 10. This curriculum appeals equally to both men and women.
- _____ 11. If I were in the LCIE program I would personally consider pursuing a Transportation Management degree.
- _____ 12. The likelihood of the Amalgamated Transit-Workers' Union embracing this concept is high.

Overall comments:

Appendix C

VISION CASTING MEETING OUTLINE

The Agency conducts monthly meetings with about 100 managers and above. During the June 1998 meeting the following would be presented:

1. Review of the management presentation made in January 1996 referencing the goal of someday developing Bi-State Development University (BSDU).
2. The six objectives of Bi-State Development University.
3. The benefits of BSDU to the employees and the Agency.
4. Presentations from the Dean of LUIE and the Dean of BSDU introducing the Transportation Management curriculum and the implementation date.
5. Introduce and recognize the Bi-State faculty.
6. Announce changes in the tuition assistance program.
7. Answer specific questions.

Appendix D

STUDENT FEEDBACK QUESTIONNAIRE

The Agency and Lindenwood College is pleased that you have successfully completed (COURSENAME). In an effort to ensure your educational experience is meeting or exceeding your personal expectations, please take the next 5 minutes to complete this questionnaire and send it to the Dean of BSDU at mail stop 152.

Please be candid with your comments. Thank you for your time and participation. We look forward to incorporating your comments in future course offerings.

1. The three most important points, lessons or skills I learned from this class are . . .

a. _____

b. _____

c. _____

2. The best part of this class was . . . _____

3. An idea to improve this class would be . . . _____

4. Your comments about the quality of the instructor. _____

5. Overall comments.

Works Cited

- Carnevale, Anthonie P., Gainer, Leila J., Villet, Janice. Training in America. San Francisco, California: Jossey-Bass Publishers. (1990): 89-100.
- Chick-Fil-A. Chick-Fil-A University. Cont: Phillip Orazi 111, Dean. 5200 Buffington Rd., Atlanta, GA 30349-2988.
- Chruden, Herbert J., Sherman, Arthur W., Jr. Managing Human Resources. Cincinnati, Ohio: South-Western Publishing Co. (1984): 195-197.
- Cornell University. Telephone interview with Rod Hawkes, Program Director, Home Study Program. June 4, 1997. (607) 255-3028.
- Corporate Leadership Council. "State-Of-The-Art Learning Centers." Fact Brief #222-030-024. (March 1995): 1-9.
- Corporate Leadership Council. "Training Benchmarks." Fact Brief #222-030-097. (Nov. 1996): 1-8.
- Corporate University Review. (July/August 1996): 6-7, 26-27.
- Corporate University Review. (May/June 1997): 10-13.
- Corporate University Review. (July/August 1997): 21-23.
- De Geus, Arie. The Fifth Disciple. N.Y.: Phantom-Doubleday, 1994.
- Dial Corporation. Telephone interview with Beverly Powell. June 23, 1997. (602) 207-5488.
- Federal Express Corporation. "Leadership Institute Profile." Cont. Steve Nielsen, Managing Director. 3035 Directors Row, Suite 501, Memphis, TN 38131. Rev. 1995.
- Fresina, Anthony J. Ph.D. "The Three Prototypes of Corporate Universities." Corporate University Review (Jan./Feb. 1997): 18-20.
- Human Resource Executive. Volumn 11, Number 10: Cover story.
- Human Resource Executive. (July, 1997): 42.
- Human Resource Executive. (August 1997): 50-52.
- McDonalds. "Hamburger University Learning and Development Profile." Cont. Felicia Hill-Taylor. (630) 623-3053.

Motorola. "Motorola University Profile." Cont. Lynn E. Hecke. 1303 E. Algonquin Rd., Schaumburg, IL 60196.

Pike, Robert W. Creative Training Techniques Workbook. Minneapolis, Minnesota: Lakewood Books, (1990): 127-130.

Ray, Brian D. "Home Education Across the United States". Court Report. (May/June 1997): 2-11.

Saturn Corporation. Telephone interview with Julie Richman on June 4, 1997. (615) 486-5927.

Sentell, Gerald D. Fast Focused and Flexible. Knoxville, Pressman International, 1994.