

**A Descriptive Analysis of Evaluation Models for  
Educational Television: *Implications for Evaluating  
Broadcasts in Literacy Skills for Adults in Marginalized  
Groups in the DE9 Countries***

A Dissertation Presented to the Faculty of the  
Graduate School Education and Psychology Pepperdine University

by  
Tim Brown  
July 30, 1997



# Problem Statement

Currently there is no evaluation component within the scheme of research and design of educational television programming developed to teach literacy skills to adult learners in marginalized groups.



# Research Purpose

The purpose of this study was to develop a set of criteria from which a model can be proposed for use by researchers, program developers and policymakers in the DE9 countries to evaluate distance education programs in literacy skills developed for adults in marginalized groups using the television as the delivery mode.



# Research Questions

- What evaluation models, procedures or practices developed to measure the teaching effectiveness of an educational television broadcast can be identified?



# Research Questions

- What evaluation models, procedures or practices developed to measure the effectiveness of an educational television broadcast can be identified?
- What common criteria for evaluation of educational television broadcasts emerge from the models, procedures or practices identified?



# Research Questions

- What evaluation models, procedures or practices developed to measure the effectiveness of an educational broadcast can be identified?
- What common criteria for evaluation of educational television broadcasts emerges from models, procedures or practices identified?
- Are the common criteria which emerge from the models, procedures or practices appropriate for evaluating educational television broadcasts designed for adults?



# Research Questions

- What evaluation models, procedures or practices developed to measure the effectiveness of an educational television broadcast can be identified?
- What common criteria for evaluation of educational television broadcasts emerge from the models, procedures or practices identified?
- Are the common criteria which emerge from the models, procedures or practices appropriate for evaluating educational television broadcasts designed for adult learners?
- What evaluation model, procedure or practice can be proposed for educational television broadcasts in literacy skills designed for the marginalized adult learner residing in a DE9 country?



# Conceptual Framework

- What roles do formative and summative approaches to evaluation play in existing models?





# Conceptual Framework

- What roles do formative and summative approaches to evaluation play in existing models?
- Are objective measures more appropriate in gather evaluative data than subjective measures?



# Conceptual Framework

- What roles do formative and summative approaches to evaluation play in existing models?
- Are objective measures more appropriate in gathering evaluation data than subjective measures?
- Should the extent to which an adult learner reaches his/her own personal objectives be a critical factor in the evaluation?



# Conceptual Framework

- What roles do formative and summative approaches to evaluation play in existing models?
- Are objective measures more appropriate in gathering evaluation data than subjective measures?
- Should the extent to which the adult learner reaches his/her own personal objectives be a critical factor in the evaluation?
- Does the nature of the “open” school or university preclude it from gathering valid and reliable evaluation data on its courses?



# Descriptive Analysis Methodology

- *Data Reduction*: selecting, focusing, simplifying, abstracting and transforming the data compiled through analysis
- *Data Display*: an assembly of information presented in an organized, compressed manner which facilitates the drawing of conclusions in order to act
- *Conclusion Drawing*: conclusions are drawn throughout the research process and are continually being verified as the study moves forward

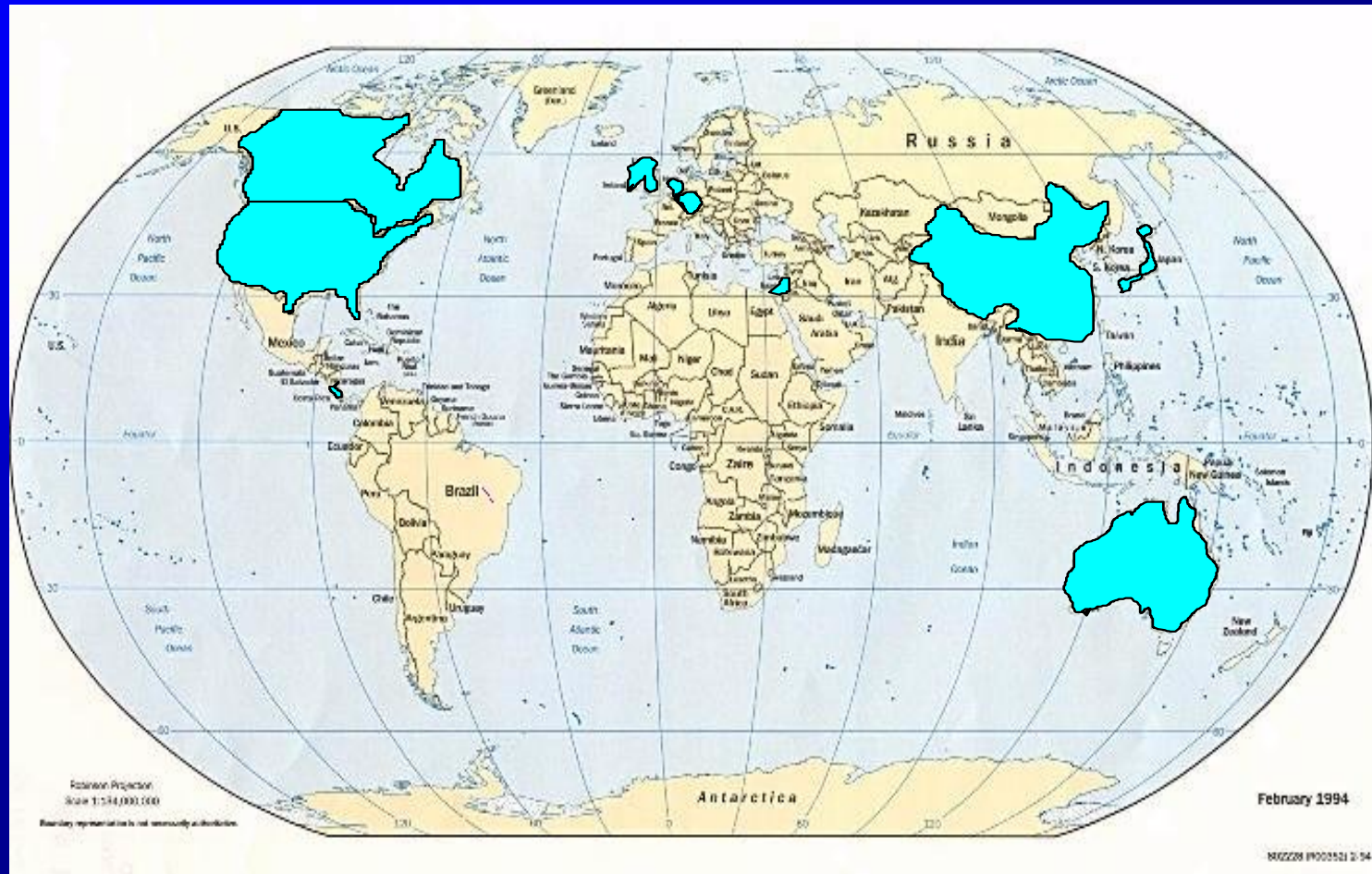


# Sample

Consistent with qualitative research theory, this sample was purposive in that the institutions whose models were analyzed in this study, were selected by the researcher. Each institution was widely recognized in the literature for its excellence in delivering or evaluating distance education programs utilizing the television. There were eleven institutions included in the sample from nine different countries which represented different regions throughout the world. Seven of the models were translated from the native language of that country.



# Countries and Regions Represented



# Data Reduction

## *Coding*

The models were coded **M1-M11** in the order that they were received. Each model was broken down and summarized in order identify the salient evaluation activities included. The objectives of each of these evaluation activities allowed for a comparing similarities and differences amongst the eleven. Matrices ( *1A, 2A, 3A and 4A*), which were developed from the conceptual framework for each research question, displayed this data. The data display led to a series of questions about what was observed. Subsequent matrices were developed to display data relevant to each question asked.



# Data Display

## *Matrices*

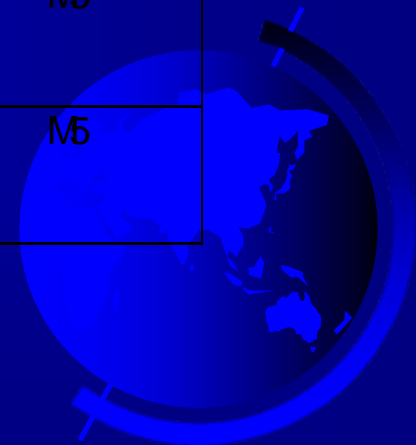
There were three different matrix formats which evolved from the original matrices as a result of questions asked during the analysis. The purpose of each was to display data which would lead to a conclusion about the question asked.





# Original Matrix 1A

Objective	Data Collection		Conducted	
	<i>informal</i>	<i>formal</i>	<i>internally</i>	<i>externally</i>
needs assessment	M5M11	M5M10M11	M5M11	
production research	M8M11M10	M1 M2M3M4M5 M7M9M11	M1 M2M3M4M7 M8M9M11	M4M10
management research	M1 M4M5M11	M1 M2M5M6M8 M9M11	M1 M2M5M6M8 M9M11	M4M5
learner to objective	M1 M2M3M5M7	M1 M3M5 M7 M10M11	M1 M2M3M5 M11	M5
objective to need	M5	M11	M5M11	M5
effectiveness to costs	M11	M5M11	M1 M11	M5

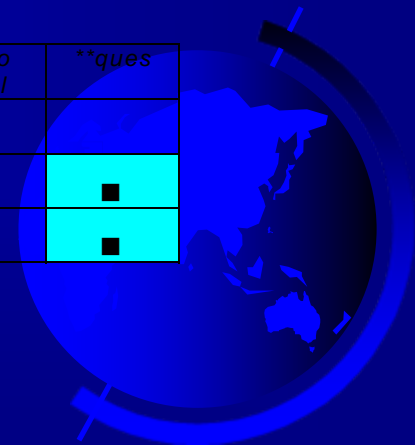


# Subsequent Matrices 1C, 1D & 1E

Objective	Informal		Formal			
	Vol. quest.	other	pre/post test	pilot studies	protocol analysis	other
product research	M11	M8	M11	M1 M3 M7		M2 M4 M5 M11

Model	other informal	other formal
M2		questionnaire
M4		course "blueprint"
M5		activities not specified
M8	collaboration w/ specialist course critique	
M9		questionnaire
M10	peer review	
M11		standardized test (Prologue)

Model	grp disc	inter view	log book	mar cmnt	obsrv	pre/post	*post quest	proto anal	**ques
M1		■			■	■	■		
M3					■	■		■	■
M7	■	■	■	■	■		■	■	■



# Reliability: *Inter-rater Reliability Study*

- A panel of three experts in instructional evaluation of distance education programs that use the television as a delivery mode were assembled
- Each panel was sent the analysis (absent the narrative) a spread sheet, instructions and a graphic example of how to proceed
- Since the common evaluation criteria was determined by the number of observed frequencies, the panel was asked to replicate that step in the analysis and verify the findings
- There were 348 possible findings, of those, there were 19 discrepancies between what was determined in the original analysis and what the panel found ( Approx. 94% agreement)
- Of those 19 discrepancies, there were at least two panel members (and in many cases all three) which concurred and the results of the original analysis were modified accordingly



- Although there were some discrepancies, the conclusions drawn from the original analysis remained the same; the questionnaire remained the most highly observed evaluation activity (52), followed by pre/post testing(13), observation (12) interviews (12) and teacher/tutor assessment (9)



# Conclusions: *Research Question 1*

- There were 15 institutions identified in the literature reviewed for this study, which were highly reputed for distance education worldwide
- Eleven of those were included in the sample for this study
- The four that were not included; the University of South Africa is print-based, Monash University in Australia has replaced telecourses with the Internet and Athabasca University in Alberta does not formally evaluate as a result of funding cutbacks and Coast Community college has no formal evaluation model



# Conclusions: *Research Question 2*

- The evaluation criteria most common to the models included in the sample for this study was the questionnaire (52 observations)
- Pre/post testing was also common; two out of the three models that incorporated a pilot study in the formative phase utilized pre/post testing and widely used in those models which included product-oriented activities (observed in five models out of six)
- Observation and interview were not only found in those models opting for pilot studies in the formative phase, but were also common among those models which included process-oriented activities (five observations and four observations respectively)
- Teacher and/or tutor assessment was the most common criterion used in the models included in the sample for this study in determining the extent to which the learner met the stated objectives of the course



- Protocol analysis and collaboration were common in those models which included process-oriented activities (two observations and five observations respectively). Protocol analysis was included in two of three of the models opting to use pilot studies
- Standardized tests were common when determining to what extent the learner reached the stated objectives of the course (six observations)
- Rating forms were common in those models which included provisions for feedback from tutors in both the developmental or presentational stages of the course



## Conclusions: *Research Question 3*

- Only two out of the eleven models included in the sample for this study attempted to measure to what extent the adult learner reached his/her own personal objectives for enrolling in the course
- M5 attempts to measure this only as a result of a “drop” by questionnaire (Attrition Questionnaire)
- M11 utilizes a number of objective and subjective measures in order to gather data relative to this question including interview, rating forms and portfolio assessment (formative phase) and a questionnaire (summative phase)





# Conclusions: *Research Question 4*

- The recommended evaluation model will include both a formative and summative phase
- The formative phase will begin with a needs assessment using either the group process method or relying on key informants
- Production research will be conducted through a pilot study, utilizing a variety of activities as appropriate including pre/post testing, observation, interview, protocol analysis and questionnaires
- Data relevant to management research will be gathered by means of a survey of technical experts within the country, the data (programs transmitted, time utilization, the availability of technical facilities, financial analyses and an accounting of staff activities) will be logged in a statistical digest for future reference



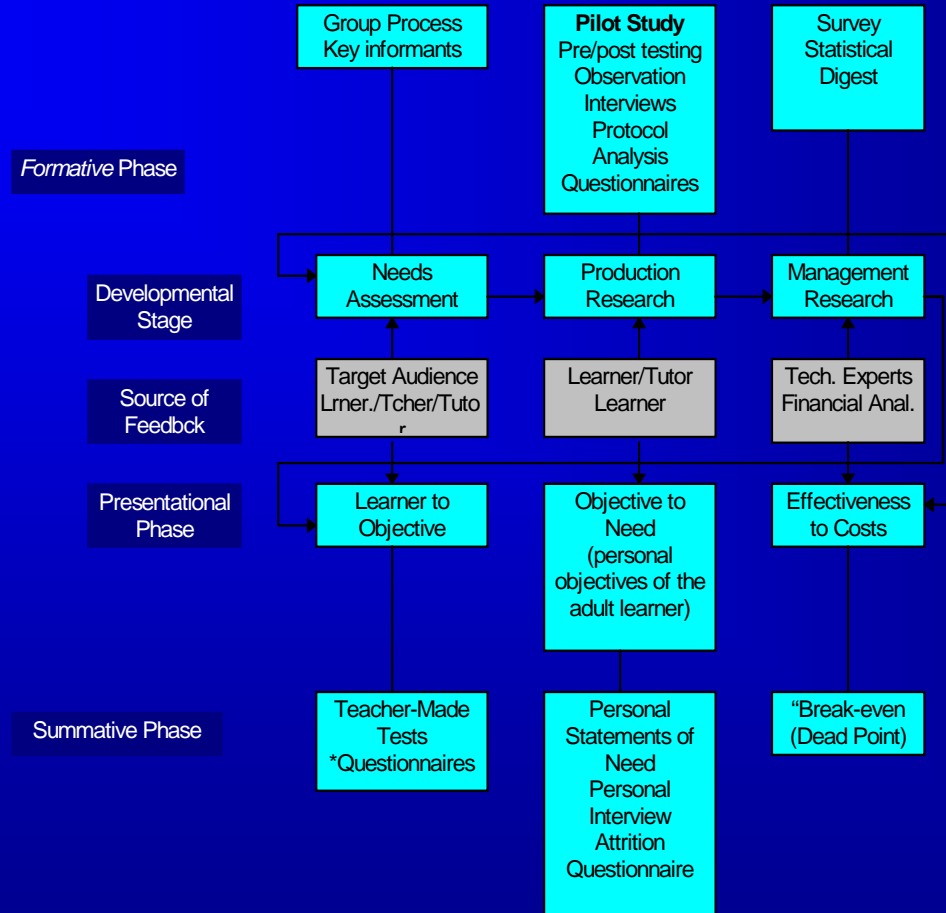
- The summative phase will include a number of objectives beginning with activities, such as teacher made tests/assignments and a questionnaire, to measure to what extent the learner reached the stated objectives for the course
- The questionnaire will include items which evaluate didactic quality, student support (tutoring) and learning strategies; if appropriate, items to determine content validity, learner initiative/attitude, the study burden and examinations could be included
- Also included in the summative phase will be a process designed to measure to what extent the learner reached his/her own personal objectives for enrolling in the course; learners will be asked to specifically state those objectives upon enrollment and at the conclusion of the course, an interview will be conducted by a tutor in order to measure for this objective



- In addition, there will be a questionnaire devised specifically for the student who fails to complete the course (drop), the instrument can be read aloud either in person or over the phone
- The final objective of the summative phase will be a cost analysis which will vary in accordance with the accounting methods used in that country
- There will be provisions to gather evaluative feedback from tutors in both the developmental (collaboration and rating forms) and presentational (questionnaires) stages
- The formative phase of this model will be in the short term for the purpose of making immediate decisions, the summative will be long term designed to produce data which will be determinants in the needs assessments of successive course development projects



# Evaluation Model Recommended for use in the *DE9*



\*Questionnaires will include items specific to the product and process (i.e. didactic issues and learning strategies and tutorial support respectively)



# Recommendations: *Further Research*

- There is substantial research that suggests adults are self-directed and thus have their own personal objectives for involvement in an educational endeavor
- Only two of the models included in the sample for this study attempted to measure to what extent the adult learner reached his/her own objectives for enrolling in a distance education course
- In light of this, more research needs to be conducted to determine if it is possible to actually evaluate a telecourse designed for the adult learner without considering whether or not the learners needs were met
- In addition, ways to collect such data have to be explored and how this kind of evaluation can be cost effective

