ABSTRACT
        This paper focuses on the filtration process of culture
during communication in education with reference to visual elements. An
introduction provides a review of some communication models--graphic
representations of theories that attempt to predict and explain the process
of communication. These simple models are discussed: Aristotle's model of
linear communication; Laswell's model; Shannon and Weaver's model introducing
the concept of "noise;" Schramm's structural model; Goss's structural model;
and Berlo's Source, Message, Channel, Receiver (SMCR) model. These more
complex models are then described: Pettersson's structural model; Rogers's
convergence model; and Galtung and Ruge's linear gatekeeping model. This
review shows that communication, as depicted in structural models, consists
of several components that relate to each other and that several elements in
the communication process can affect the eventual outcome of the
communication process. The next section provides a perspective on the
integration of culture and communication and focuses on factors with a
potential negative or positive effect on the outcomes of picture-text
learning material, such as the receiver's cultural and social status. The
paper shows that culture and communication are inseparably linked and that
culture is a lens or filter through which people receive, interpret, and
transmit messages. (Contains 15 references.) (YLB)

TEND 2000
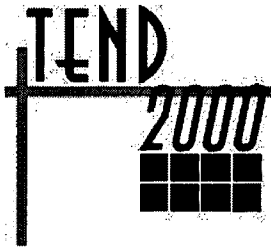
Crossroads of the New Millennium

Culture: A Filtration Process During Communication In Education

Prepared and Presented

By

Dr. Rudi de Lange

Director

School of Design Technology and Visual Art

Technikon Free State

email : rudi@tofs.ac.za

Sunday 9 April, 2000

Workshop 1

1

Abstract

A brief review of structural communication models, a discussion of some elements that affect the communication process in education provides the introduction to the workshop. A learner's perception varies and is affected by several factors, one of these being the receiver's cultural and social status. It can be argued that culture in its widest sense is expressed and embodied in most facets of a person's life. Culture, expressed in laws and precepts, governs how an individual can or must behave within a particular society; it determines how educators will approach their students or how a medical doctor will communicate with his/her patient, to name but a few.

The focus of the workshop is on the filtration process of culture during communication in education with reference to visual elements. Culture is a lens or a filter through which people receive, interpret and transmit educational messages. Communication in the educational process is an open system and takes place within a cultural environment. This environment affects the sender, the receiver and the relationship between the sender and the receiver. These concepts are graphically presented by a model as a process that takes place within a cultural environment.

Culture: a Filtration Process during Communication in Education

Researchers and theorists have developed several models and theories in order to explain and predict the process of communication. A review on the current state of communication theory by Neuliep (1996) provides an impression of the breadth and depth of this scientific field. Neuliep cites and briefly discusses more than seventy theories and then states that they do not include all the research that has been done in this field. It is, therefore, nearly impossible to provide a review of all the theories and all the models that predict and explain these theories. The introduction to the workshop will provide a brief review of some models that appear to be applicable to the focus of the workshop. These models are graphic representations of theories that attempt to predict and explain the process of communication and related activities. A graphic model is useful in that it can portray a psychological process that would normally be difficult to define, and can be used to describe and explain the working of such a process. A model also simplifies reality, can present abstract concepts, and can portray individual concepts and their relationship with each other.

SIMPLE COMMUNICATION MODELS

Possibly, the first model of communication is Aristotle's model of linear communication, which can be extrapolated from his writings. This model accounted for a one-way form of communication and included the speaker, the message, and the audience or listener.

A well-known statement on communication, and one that has been structured into a model, is made by Laswell (1948), who stated *"Who says what in which channel to whom with what effect"*. Laswell's model added the concepts of the *"medium"* and the *"effect"* that the message has on the receiver. The *"who"* signifies the sender or communicator, the *"says what"* the message, the *"in which channel"* the medium, the *"to whom"* signifies the audience or receiver, and the *"with what effect"* signifies the impact.

Shannon and Weaver (1949) introduced the concept of "noise" in the communication process. Their model explained the process of communication in telecommunication, from when the message is sent from the source, through the transmitter, to the receiver and the final destination. The noise signal, also known as interference in other models, affects the signal, which in turn is one reason why communication fails.
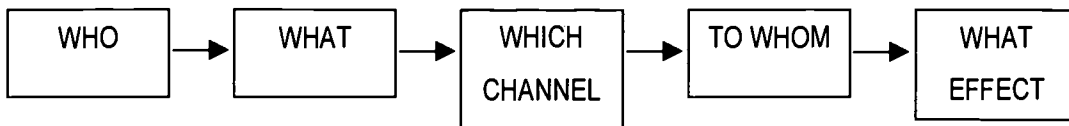
The three models cited above are all linear models in that they do not require or allow feedback or interaction with the sender or the information source. Simplified representations of the linear models are given in Figure 1.
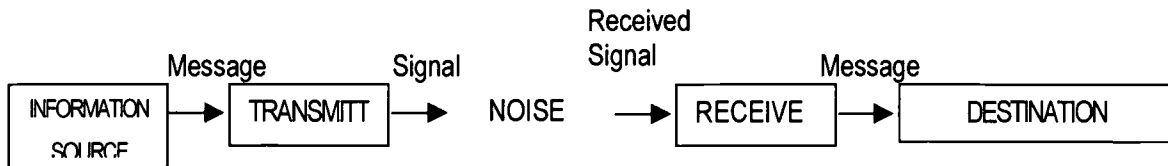
FIGURE 1

A simplified representation of three linear models of communication.

SPEAKER ⟶ MESSAGE ⟶ AUDIENCE

Aristotle's model

WHO → WHAT → WHICH CHANNEL → TO WHOM → WHAT EFFECT

Laswell's model

INFORMATION SOURCE →Message→ TRANSMITT →Signal→ NOISE →Received Signal→ RECEIVE →Message→ DESTINATION

Shannon and Weaver's model

Schramm's structural model portrays an overlap between the sender's and the receiver's field of experience. This overlapping field of experience is the area where effective communication occurs.

Another structural model proposed by Goss in 1983 takes into account psychological and social concepts of communication. This model emphasizes an interaction or relationship between sender and receiver resulting in a cyclical communication process. The communication process is a circular process that takes place within a certain context where two persons have a social relationship. The message can also be encoded and decoded on three different levels, namely a verbal, a vocal and a non-verbal level.

The focus of the SMCR (Source, Message, Channel, Receiver) model, proposed by Berlo, outlines the factors or the characteristics that affect the sender and the receiver in the

communication process. Culture and attitudes can, for example, affect the sender or source; the contents of the message and the code, for example, affect the message; sensory perceptions affect the channel; whilst culture and attitudes, for example, can affect the receiver. The models of Schramm and Goss introduce the sender's and receiver's experience as well as a relationship or an interactive process between the sender and receiver. Berlo's SMCR model further defines smaller ingredients in the communication process that in turn affect different steps in the communication process. Schramm's, Goss's and Berlo's models are given in Figure 2.

FIGURE 2

The communication models of Schramm, Goss, and Berlo.
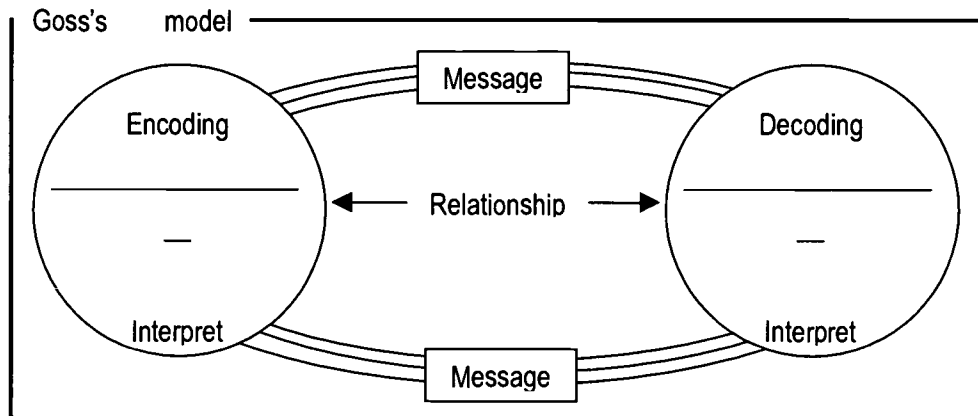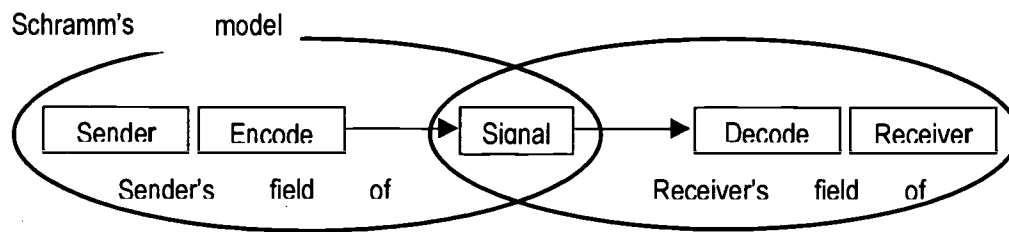
| Source	Message	Channel	Receiver
Communication skills	Elements	Seeing	Communication skills
Attitudes	Contents	Hearing	Attitudes
Knowledge	Treatment	Touching	Knowledge
Social system	Structure	Smelling	Social system
Culture	Code	Tasting	Culture

Berlo's SMCR model (1960)

MORE COMPLEX MODELS

A structural model, more from a visual communication and visual literacy perspective, was proposed by Pettersson in 1982 (cited in Pettersson, 1993). Pettersson stated that many of the previous models that attempt to incorporate the increasing number of variables fail to incorporate a perception process. A receiver's perception of a message varies because of his/her sociocultural status, experience, mood, cognitive processes, and stage of development. Perception, in turn, is removed from the representation or the message, which is in turn removed from reality. A viewer or receiver can thus understand the message, as stated by Pettersson, as *"garbage"*. They can also understand the message correctly, act, and provide feedback to the sender. Pettersson's model in given in Figure 3.

FIGURE 3

Pettersson's 1982 communication model (from Pettersson, 1993:5).
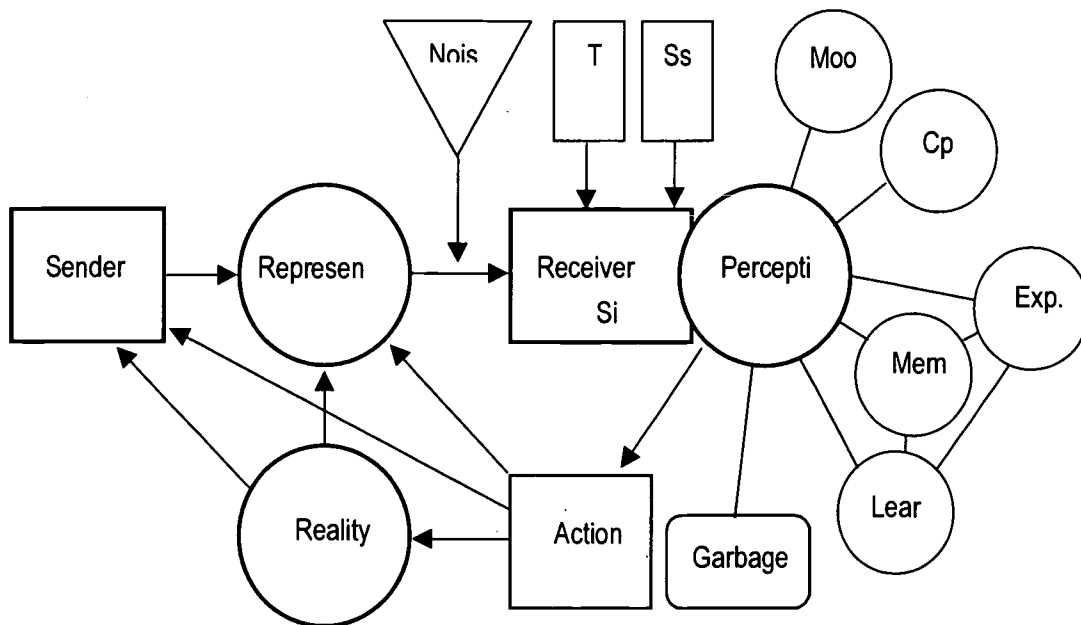
T = Time and stages of development, Ss = Cultural and social status, Represen. = Representation, Si = Sensory impression, Cp = Cognitive processes such as intelligence and creativity, Exp. = Experience, Learn. = Learning, and Mem. = Memory.

The seven models of communication that were discussed in the preceding paragraphs have shown certain similarities, namely that there is always a sender (source / speaker), there is always a message (representation) and there is always a receiver (listener). The basis of a basic communication model, as in Aristotle's case, could consist of these three elements. The models have shown a growth in complexity where these three main components have been

augmented by additional objects, for example the concept of a *"channel"* by Laswell, and the concept of *"noise"* in the Shannon-Weaver model. Communication models have been developed further by incorporating a process of experience between the receiver and sender as depicted in the Schramm model, and a process of interaction through a relationship between sender and receiver as in the Goss model. The Goss model further introduces the influence of the environment on the communication process as a whole. The models of Pettersson and Berlo further interpose several objects in the models that affect the stages, objects or processes in a communication process, namely culture, social system, mood and sensory impression, to name but four of these objects in the models.

A convergence model proposed by Rogers in 1986 depicts a communicative relationship between two participants where several cycles of information exchange occur during a communication process. This cyclical process conveys and exchanges information before mutual understanding occurs. The value of this model is that it indicates that communication between the learning material and the person receiving the material must take place even though the learning material is static and cannot actively contribute to the cyclical process.

A linear gatekeeping model based on the theory of Galtung and Ruge (McQuail and Windhall, 1993) develops one aspect of gatekeeping, namely criteria that affect the rejection or selection process of world events or news. McQuail and Windhall provide nine factors of which sociocultural values and cultural proximity are but two factors. Applying this model to learning material could predict that the learners' culture could affect their acceptance of the messages is inappropriate visuals or text is incorporated into the material. Inappropriate cultural conventions in the learning material could, in terms of this model, lead to a rejection.

What is clear from the brief review of some of the communication models is that they have progressed from a simple model by Aristotle, a gatekeeping model where cultural values could lead to a rejection, to a more complex model with a visual literacy orientation by Pettersson. A combination of these models would produce an interacting model consisting of interrelated components that would relate to its environment as a whole and as individual components. It could point towards a complex communication model that is composed of several objects and smaller elements. An object in the context of this discussion is, for example, "the sender" or "the message" in a model. An element could be, for example, the "communication skills" of the sender and the "mood" of the receiver. Such a larger and more complex model would have several characteristics, namely relationships and interdependence between the components and the elements. The effectiveness of a message, for example,

depends inter alia not only on the skills of the sender, but also on the ability of the receiver. The receiver is at the same time affected by his/her culture and by noise or interference in various places in the communication process.

A communication model whose function it is to present the phenomena of communication (within the scope of this workshop) in a systematic and comprehensible but simplified graphic format must represent an open system, and that such an open system must have an interactional approach.

CULTURAL ASPECTS IN COMMUNICATION MATERIAL

The review above showed that communication, as depicted in structural models, consists of several components that relate to each other, and also showed that several elements in the communication process can affect the eventual outcome or aim of the communication process. A receiver's perception varies and is affected by several factors, one of these being the receiver's cultural and social status. This section provides a perspective on the integration of culture and communication and will focus on those factors that could have a potential negative or positive effect on the outcomes of picture-text learning material.

Green and Lascaris (1990), in a popular book *"Communication in the Third World"*, written from a marketing and advertising perspective, aptly introduces their ideas by stating that " *you talk to people from a Third World base, not down to them*". Whilst it is debatable if there is a difference in the outcome of talking "*to*" a person or talking "*down to*" a person, the book provides useful guidelines for advertisers. The approach of Green and Lascaris appears to be written from a position of power, knowledge and experience in the marketplace. In contrast to this "top down" method of communicating, the position of Tomaselli and Tomaselli (1984) is more from a "bottom up" approach, whilst Linney (1995) advocates an even stronger "people-centred approach" where the target market is responsible for developing the communication material. In spite of Green and Lascaris's authoritarian perspective, they provide, as part of their ten guidelines to successful advertising, some broad guidelines pertinent to cultural aspects of communication. These guidelines are: focus on branding; use role-model endorsement; use the experience of sport and seek associations between brands and sport; use appropriate music norms; learn about camaraderie in metro and township scenes and use these emotional connotations; and use the educational environment as a marketing tool. What is significant about their pragmatic approach, is that these guidelines focus on sociocultural aspects of a particular target market, namely familiarity with visual items (branded goods, role models), experience (sport, music) and social activities

(camaraderie). The underlying suggestion of Green and Lascaris is to take cognisance of sociocultural aspects of your target market and to use these cultural elements and social practices in advertising and marketing activities. This paradigm can hardly be regarded as significant, as it is a recognised approach advocated by researchers who work in related fields of communication, for example in health care (Holmes, 1964 and 1968; Linney, 1985; Hugo and Smit, 1998).

What is significant is that the value of sociocultural elements in communication with a commercial outcome, as suggested by Green and Lascaris, appears to be a recognised ingredient in an advertising campaign, both in local and international advertising activities. Suffice it to say that this approach and practice is evident in the mass media.

A guide for fieldworkers by Swanepoel and De Beer (1996), whose aim it is to introduce the subject of communication in development, lists several barriers to reception, understanding and acceptance. The publication also cites a set of rules on how to overcome communication barriers and practical "do's" and "don'ts" regarding communication. Cultural differences, in addition to social and political differences, are stated as factors that will create a barrier to the acceptance of a message during a communication process. This difference in culture as a barrier to communication is furthermore illustrated by Mbombo (1996) who, as an African medical doctor, cites several incidences where mixes of poverty, illiteracy and culture can create barriers to communication. A typical example is where illness is explained in terms of witchcraft or a *"tikoloshe"*. Mbombo also explained that it would be inappropriate for a medical practitioner to ask *"What is wrong with you?"* and that *"What can I do for you?"* would be more appropriate since the medical practitioner is seen in the same light as a traditional healer, and is supposed to know what is wrong.

It is not only with communication-related aspects in the commercial, medical and social environment where conflict can arise due to cultural differences. Laws and moral precepts, signs of cultural identity similar to religious practices and language, embody the values and beliefs of the people that make up a particular group (Bennett, 1996). It is when people from different cultures meet, and when laws that govern one's group behaviour are in conflict with the other group's beliefs and practices, that difficulties will arise. Some examples are monogamous and polygamous marriage practices and the position of women in society when Western practices are compared with practices in some Middle East countries.

From the above it can be argued that culture in its widest sense is expressed and embodied in most facets of a person's life. Culture, expressed in laws and precepts, governs how an individual can or must behave within a particular society; it determines how marketers will approach an advertising campaign targeted at a specific group or how a medical doctor will communicate with his/her patient, to name but a few. The concepts of culture and communication are interwoven and regulate how people not only behave or express themselves, but also how they form a message and how another person responds to a message. This unison between culture and communication is described by Samovar and Porter (1995) as "*inseparable*", making it difficult to decide which is the "*voice*" and which is the "*echo*". Culture and communication are inseparable. The influence of culture could prove to be a major component in a structural communication model, and not a single influencing variable as depicted in Pettersson's 1987 model.

The preceding sections have shown that culture and communication are inseparably linked and that culture is a lens or a filter through which people receive, interpret and transmit messages. Communication is an open system and takes place within a cultural environment. This environment affects the sender, the receiver and the relationship between the sender and the receiver. This concept is graphically presented in Figure 4 as a picture-text-communication process that takes place within a cultural environment. The purpose of this model is to show the importance and position of culture in relation to the communication process.

FIGURE 4

A graphic representation of the communication process within a cultural environment.
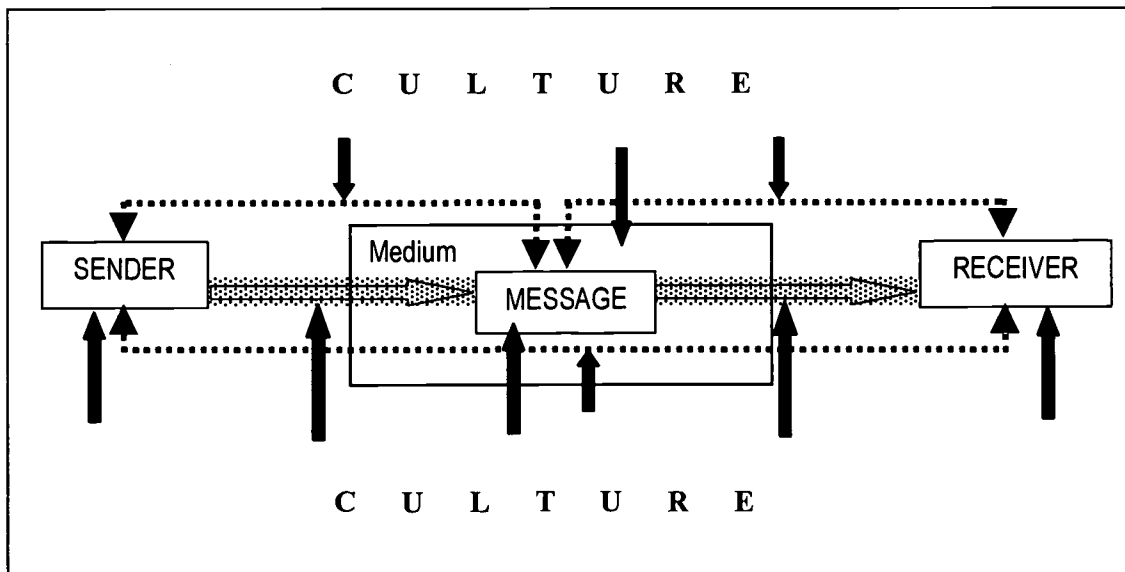
The communication model operates within a cultural environment. The black arrows denote the specific positions in the communication process where cultural influences may occur. The broken arrows indicate the communication and feedback process. Culture acts as noise factor in a communication process and can interfere with the sender's ability to encode a message, it can interfere with the feedback process between the receiver and the sender and influence how the receiver interprets the message. Text, pictures and picture-text messages are subjected to cultural influences in the learning process where picture-text learning materials are used.

REFERENCES

- Bennett, T.W., (1996). "Law as expression of culture". In *Cultural Synergy in South Africa*, ed. Steyn, M.E. and Motshabi, K.B., 77-88. Randburg: Knowledge Resources.

- Green, N., and Lascaris, R., (1990). *Communication in the Third World. Seizing advertising opportunities in the 1990s.* Cape Town: Tafelberg and Human & Rousseau.

- Holmes, A.C., (1964). *Health education in developing countries.* London: Thomas Nelson and Sons Ltd.

- Holmes, A.C., (1968). *Visual aids in nutrition education. A guide to their preparation and use.* 7th ed. Rome: Food and Agricultural Organisation of the United Nations.

- Hugo, J., and Smit, M., (1998). "Making media messages more suitable for health education in the Africa context". *Journal of Audiovisual Media in Medicine*, 21(3):87-94.

- Laswell, H.D., (1948). "The structure and function of communication in society". In *The communication of ideas*, ed. Bryson, L. New York: Harper.

- Linney, B., (1995). *Pictures, people and power.* London: MacMillan.

- Mbombo, O., (1996). "Practising medicine across cultures: Conceptions of health, communication and consulting practice". In *Cultural Synergy in South Africa*, ed. Steyn, M.E. and Motshabi, K.B., 109-117. Randburg: Knowledge Resources.

- McQuil, D. and Windahl, S., (1993). *Communication Models.* 2ed. London: Longman.

- Neuliep, J.W., (1996). *Communication Theory. Applications & Case Studies.* Needham Heights, Massachusetts: Allyn & Bacon.

- Pettersson, R., (1993). *Visual information.* 2nd ed. Englewood Cliffs, New Jersey: Educational Technology Publications.

- Samovar, L.A., and Porter, R.E., (1995). *Communication between Cultures.* 2nd ed. Belmont: Wadsworth.

- Shannon, C.E., and Weaver, W., (1949). *The Mathematical Theory of Communication.* Illinois: University of Illinois Press.

- Swanepoel, F., and De Beer, F., (1996). *Communication for Development. A Guide for Fieldworkers.* Halfway House: International Thomson Publishing (Southern Africa).

- Tomaselli, K.G., and Tomaselli, R., (1984). "Media graphics as an interventionist strategy". *Information Design Journal*, 4(2):99-117.

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

ERIC®

REPRODUCTION RELEASE
(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title:
TEND 2000 CONFERENCE PROCEEDINGS

Author(s):

Corporate Source: HIGHER COLLEGES OF TECHNOLOGY	Publication Date: APRIL, 2000

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

____Sample____

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Level 1
↑
[✓]

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

____Sample____

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Level 2A
↑
[ ]

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

____Sample____

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

Level 2B
↑
[ ]

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign here,→ please

Signature:

Organization/Address: PO BOX 25026 ABU DHABI, UAE.

Printed Name/Position/Title: ANTHONY BILLINGSLEY SUPERVISOR PUBLIC RELATIONS

Telephone: (971-2) 681 4600
FAX: (971-2) 681 0830
E-Mail Address: anthony.billingsley@hct.ac.ae
Date: 22.10.00.

(over)