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## DEVELOPING A COMPUTATIONAL LEARNING AND TESTING TOOL FOR COMMUNICATION STUDIES

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### ABSTRACT:

Communication studies is an exciting, dynamic, and fast evolving academic discipline in Sri Lankan universities. A degree of communication is versatile because there is a lot one can do with it, especially the availability of possible job opportunities mostly in every domain. They include, but are not limited to: marketing, public relations, speech writing, speech coach/consultant, teaching, political campaigns, labour union organizing, academic and non-academic posts at universities, spokesperson, community relations, or a professional speaker. Students find freedom with a communication degree because they can follow its flexible passions. Further, communication studies gives graduates important personal insights into the current wired world that can broaden their horizons and concepts of it, allowing them to see the 'big picture' of human life. Thus, by considering the importance of communication studies, this paper attempts to develop a simple but effective



**M.Somathasan**

computational learning and testing tool, known as A Learner and Tester of Communication Studies based on the area of forms of human communication; and we strongly believe that the tool will help the students accumulate the knowledge in communication studies to great extent.

**KEYWORDS:** communication studies, academic discipline, job opportunities, personal insights, wired world, computational tool.

### INTRODUCTION:

The discipline of communication studies which is now a research field of emerging importance, is firmly established in the academic arena of the current pedagogical world. Communication is a dynamic, recursive, and continuous process which brings the commonness among the ones who are

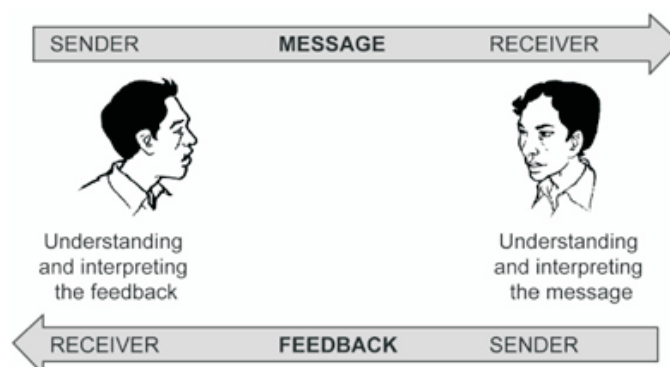
involved in it. Etymologically, the word is derived from the Latin word *communis* which means 'common'. A student experiences different forms of communication every day, i.e. along the way from his home to his college or university. Wherever he goes or whatever he does, he becomes the part of some sort of communication which is everywhere; and it intertwines with his life, i.e. it is integrated into all parts of human life. As food and water are very important to man's survival and so is communication. That's why, the first and best known pretty axiom of the communication theorist Paul Watzlawick's five axioms of communication says: *One cannot not communicate*. It means that one cannot really avoid communication because every human behaviour is a kind of communication. Without communication, man's existence is impossible in the civilized society. Moreover, it is obvious that a strong communication brings the success to mankind, and at the same time the ineffective communication brings the holocaust to the world. For example, the nuclear attacks on the Japanese cities of *Hiroshima* and *Nagasaki* during the World War II. Thus, it is essential to study about communication and its forms to understand better the multifaceted human life, its relations, and its existence.

### DEFINITION OF COMMUNICATION:

While defining communication, the philosopher John Fiske (1990) states that "Communication involves signs and codes. These signs and codes are transmitted or made available to others: and that transmitting or receiving signs/codes/communication is the practice of social relationships". He generalizes that communication is a social interaction through messages. Further, the researchers, Jack C. Richards and Richard Schmidt (2010), defines communication as the exchange of ideas, information, etc., between two or more persons. Then, Adler and Towne (1978) describe communication as a process between at least two people that begins when one person wants to communicate with another. Further, a Nigerian scholar B. Folarin (2002), states that "Communication is any means by which a thought is transferred from one person to another". What is more, the scholar Gordon Coates (2009), defines communication in the following three simple ways:

1. Communication is the sharing of information.
2. Communication is the giving and receiving of messages.
3. Communication is the transfer of information from one or more people to one or more other people.

Therefore, from the all said above, communication can be interpreted, in its simplest sense, as the transmission of messages or ideas from a sender to a receiver. The receiver of the message tries to understand and interprets the message sent. He, then, gives feedback to the original sender, who in turn interprets the feedback. This process, continuously repeated, constitutes communication. The following figure represents the process of communication.



Here, the sender may be a person or a group of persons, who transmits or encodes messages or thoughts or ideas to a destination which may also be an individual or a group who receives or decodes the messages. This concept is known as *Linear (or Transmissive) model of communication*. There are the other two models of communication as well: *Interactional (or Interactive) model* and *Transactional model*. But this paper concentrates on only the forms of communication.

### Forms of Communication:

There are five main forms or levels of human communication depending on the nature of the interaction: *intrapersonal, interpersonal, group, public, and mass communication*. Each varies in terms of participants, channels used, and contexts. Students who engage in and master the said varieties of communication forms, acquire the skills such as *self-presentationskills, relationship skills, interviewing skills, group interaction and leadership skills, presentation or public speaking skills, etc.*

#### 1. Intrapersonal Communication:

Intrapersonal communication, also known as 'self-talk', is the communication that takes place within the self. In this communication, the individual functions as both sender and receiver. Further, it is the active internal involvement of the individual in symbolic processing of messages, i.e. the message is made up of an individual's thoughts and feelings and the channel is his brain, which processes what he is thinking and feeling. There is also the relevant feedback to him in an ongoing internal process. Daydreaming, meditation, interior monologues, internal discourse (like *thinking, concentration, and analysis*), solo vocal communication such as *speaking aloud to oneself*, solo written communication like writing not intended for others (e.g. *an entry in a person's diary*), etc. are some examples of intrapersonal communication. Intrapersonal communication has some manipulations. One of them is *transpersonal communication* which is the experiences of conversing with the divine or invisible forces.

The basic operation of intrapersonal communication is *self-awareness*, i.e. how one sees him and is viewing or looking at others. It is clear that, to be a better communicator, a person must be aware of himself. As far as the benefits of intrapersonal communication are concerned, they are rich in flow, i.e. it helps a person build and maintain his self-concept and then self-respect. It, further, helps him achieve or maintain social adjustments. For example, a person may use the intrapersonal communication to calm himself down in a stressful situation.

#### 2. Interpersonal Communication:

Interpersonal communication is the interaction between two (especially known as *dyadic communication*) or more people to exchange ideas, feelings, and thoughts through verbal and non-verbal messages. It is the most effective communication as it is personal, two-way, intimate, and with feedback; and can take place face-to-face as well as through technology-incorporated channels (e.g. *telephone conversation, e-mail, instant messaging, internet chatting, video conference, etc.*) or even in traditional way like letter writing. Interpersonal communication reflects many desirable functions such as *gaining information*, i.e. gaining knowledge about others to have an effective interaction; *building a context of understanding*, i.e. it helps the participants engaged understand each other better in a given context; establishing identity, i.e. the roles of the participants' relationship tutelage them to establish identity, etc. Thus, it's through interpersonal communication that a person establishes, maintains, sometimes destroys, and sometimes repairs personal relationships with others.

#### 3. Group Communication:

Group communication occurs among a group of people mostly with common goals. In a group communication, one person communicates with many persons, or many persons communicate with one person, or many persons communicate with all. Group at this level of communication is not a large number of people, i.e. the group must be small enough so that each member has a likelihood to interact with all the others towards achieving a shared goal (e.g. *moving a business from one place to another*). The social psychologist, Robert Bales, carried out the first important research study of small group communication in the early and mid-1950s. Through group communication, a person interacts with others, solves problems, develops new ideas, and shares knowledge and experiences. A *classroom* is the best example for group communication. Further, group communication is effective when organized with a specific agenda; and it is relatively direct, intimate, and functional; and gives room for a good deal of opportunity for adequate feedback. Moreover, group communication motivates the interpersonal communication as the group members communicate with and



relate to each other interpersonally.

#### 4. Public Communication:

Public communication is a communication between a speaker and an audience. Audience ranges in size from several people to hundreds, thousands, and even millions. The speaker, i.e. the sender, gets focused in this communication and is typically responsible for conveying information to the audience, i.e. through public communication, a speaker informs and persuades the audience. The audience, in turn, informs and persuades the other to act, think, etc. in a particular way. A speaker can address a large audience not only face-to-face, but can also speak to such audience electronically like *through video conference*. Further, the social networks such as *Facebook, Twitter, newsgroups, or blogs* are helpful for a person to post his "speech" for anyone to read and then reads their reactions to his message. In addition, with the help of the more traditional mass media of *radio* and *television*, he can address the audience in the hundreds of millions as they sit alone or in small groups all over the world. When compared to interpersonal and group communication, public communication is the most consistently intentional, formal, and goal-oriented form of communication. Speaker's social position, presentation skills, topic's knowledge, and the audience make the public communication more effective. But, feedback is very minimal in this communication.

#### 5. Mass Communication:

The concept of mass in mass communication means large, anonymous, heterogeneous, and widely scattered or dispersed audience. Mass communication is disseminating or spreading information, ideas, attitudes, etc. to a large audience by using mass media known as the *channels of communication* which are newspapers, magazines, radio, television, websites, blogs, social media, podcasts, books, and films. These channels are run by specific media institutions such as newspaper organizations, radio networks and television stations, movie companies, music producers, and the Internet service providers, following the rules and regulations of the government. Unlike interpersonal and group communication, there is no immediate verbal and nonverbal feedback in mass communication. But the feedback is immediately possible with the new media technologies like *Twitter, blogs, Facebook*, etc.

Having considered the five forms of communication and their nuances stated above, an innovative strategy has been applied for learning and testing of communication forms in the guise of the development of a candid and competent computational tool.

#### The Sample Visual of the Developed Tool

Forms of Communication - A Tester

### Forms of Communication

A Tester © M. Somathasan & Dr. S. Raguram

Click the Question button and answer the following questions. Question

3. Some people talk to the God while praying. It is known as .....

☐ 1. intrapersonal communication  
☒ 2. transpersonal communication  
☐ 3. interpersonal communication  
☐ 4. group communication

Q.N	Correct answer	User's attempt	Status
1.	interpersonal communication	not a communication	Wrong
2.	sends or encodes	sends	Wrong
3.	transpersonal communication	transpersonal communication	Right
			Total

Exit All Questions Refresh Learning Check

#### METHODOLOGY:

First of all, the forms of communication such as intrapersonal, interpersonal, group, public, and mass communication were deeply deemed for the particular study. Then, nearly hundred multiple choice questions

(for this paper) were carefully formed from many sources like books, reliable materials in the internet, etc. Then, the computer language *Visual Basic 6* (VB6) was used to design the particular tool and all the questions and their relevant answers were cautiously fed into the programme, i.e. the tool. As far as the mechanism of this tool is concerned, a student, first of all, has to click the *Question* button to get the questions. Then, he can see the question and its four answers displayed. The tool, here, has been programmed to display the question randomly. Now the student has to read the question attentively and click the appropriate answer. If he likes to see or check his results immediately, he can click the *Check* button to see it. Otherwise he can *check* the answers of all the questions after attending them completely. In the results grid, the student can see the question number, question, the correct answer of the question, his attempt, the status whether his attempt is right or wrong or NA (Not Attempted), and finally the marks.

### RESULTS AND DISCUSSION:

Some students were selected from the course of communication studies to test their existing and also boosting the knowledge in communication studies with this tool. They utilized the tool enthusiastically and their results were also quite positive. Further, they stated that they were very interested in doing such technology-incorporated activity and especially all voiced happily that they were able to get the immediate feedback of their every attempt in this e-tool. Thus, it is obvious that technology based education, especially computer based learning and testing activities stimulate the students' interest in their education and it is also very helpful for teachers to observe the students' performance and motivate them towards their learning mission and vision.

### CONCLUSION:

Communication is a learned skill and also a complex process in which several major elements such as a sender, message, channel, receiver, feedback, context, speaker's intention, and listener's reception are available. Every human being has to take special efforts to develop and refine this skill for a better communication in his or her society. Communication studies is becoming an inevitable discipline in higher educational set-up in Sri Lanka. The Bachelor in communication degree programme is a multi-purpose degree that opens up gigantic job opportunities in every sector of the economy. That's why, a large number of students like this course of study now-a-days. They are using many resources like books, e-books, internet, etc. to develop their knowledge in this field. Being academics, we also feel that we can contribute our part for the good side of these students. Based on this thought and realizing the indispensability of the computer technology in the present educational system, we developed a computational tool by using VB6 for easy and successful learning and testing the forms of communication which are the main areas in communication studies.

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