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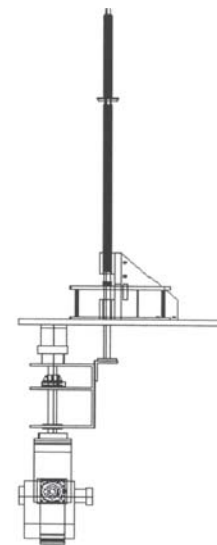
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## A MULTIMEDIA AUTHORING SUBSYSTEM FOR CAPTURING VIDEO AND STILL IMAGE SEQUENCES OF SMALL SUBJECTS



The project involves the development of a multimedia authoring subsystem that facilitates the production of video and still image sequences of small objects. The system uses a motorized gantry robot to position the camera relative to the subject, a video or an image of which is to be taken. The user specifies a path to be taken by the camera and the gantry robot positions the camera along the path. The advantage of this approach is that it eliminates the camera shakes and positional jitters that a human operator would create if the positioning of the camera is done manually. The resulting video is more pleasing to look at and watchable for people who get motion sickness from seeing jerky video sequences. The prototype system, although not yet in fully optimized form, is capable of producing the basic target output.



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# **FILIPINO-ENGLISH BILINGUAL CHILDREN'S LANGUAGE ACQUISITION: EXPLORING THE RELATIONSHIP AMONG DEGREE OF PARENTAL BILINGUAL INPUT, CHILDREN'S BILINGUAL PRODUCTION, COMPREHENSION, AND METALINGUISTIC ABILITY**

This study examined the Filipino-English bilingual children's parental bilingual input, children's bilingual production, comprehension, and metalinguistic ability and how these are related with each other.

The respondents for the study were 60 parent-child dyads. The children were four- to six-year-old preschoolers from the middle socioeconomic group. The parents were Filipino-English bilinguals. Parent-child dyads were required a 20-minute sample of their naturally occurring conversation for the analysis of the nature of bilingual parental input and children's bilingual production. All 60 child-respondents were individually tested for comprehension and metalinguistic ability. A total of three metalinguistic tasks were administered: one that required control of linguistic processing (arbitrariness test) and two that tested children's analysis of linguistic knowledge (vocabulary test, and judgment and correction test).

Parents' self-report showed that bilingual parents prefer the use of both English and Filipino in most domains of day-to-day activities but might actually favor English in tasks that are academic in nature. Moreover, a detailed analysis of parental

bilingual input showed that Filipino-English bilingual parents speak to their children primarily in English, secondarily in Filipino, and then least in a Filipino-English code-switched language. A similar pattern was shown in the children's bilingual production. The comprehension test seemed to indicate an equal performance by the child-respondents in the Filipino and English versions of the test. The children's metalinguistic ability scores also seemed to reflect an equal ability in controlling language processing (in the case of the arbitrariness test) and in analyzing linguistic knowledge (in the cases of the vocabulary test, and judgment and correction test).

Correlation data suggested that parental bilingual input in English predominantly showed positive relationship with several variables. Conversely, the parental bilingual input in Filipino indicated the most negative correlation with a number of variables.

The study is a pioneering work in Filipino-English bilingual children's language acquisition and is hoped to encourage further studies in this area of investigation.



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# EFFECTS OF METACOGNITIVE ABILITIES, SELF-EFFICACY, AND SOCIAL INFORMATION ON CONFIDENCE JUDGMENTS



When students have to study for an upcoming exam, they have to decide on the order, length of time, and the extent of their study of a specific topic. They need to assess the current status of their knowledge, evaluate the difficulty of the material to be learned, monitor their efforts to understand the material while studying, evaluate the outcomes of their efforts, make behavioral adjustments accordingly, etc. These self-assessments are called *metacognitive judgments* and they are usually used as bases for cognitive decisions such as goal-setting and subsequent behavioral regulation. For that reason, it is important to assess the factors affecting these judgments as well as their accuracy.

This study assessed the relationships among metacognition, self-efficacy beliefs, and social information, and how these variables interact to affect confidence judgments (one kind of metacognitive judgment). Participants answered

multiple-choice questions in areas in which they classified themselves as having either high or low self-efficacy. Subsequently, they evaluated their confidence in their answers under two different conditions (with and without social information). Results revealed that performance and the magnitude of the confidence judgments were significantly affected by self-efficacy and social information but this effect changed according to participants' metacognitive abilities. Accuracy was also significantly influenced by self-efficacy and social information but no interactions with metacognitive abilities were observed. Participants made significantly more accurate judgments in the high self-efficacy area. Moreover, accuracy was higher in the high social information condition. The results of the study are discussed and linked to goal-setting and self-regulation process.



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# MODELING THE QUALITY OF SERVICE OF URBAN ROAD NETWORK



Studies conducted over the past two decades have attempted to model the performance of urban road networks using aggregate measures of average network speed and flow, among other related indicators. The need to distinguish between network flow and highway flow has been recognized. Similarly, it has become necessary to differentiate between urban settings where average speeds of less than 60 kph prevail, and non-urban areas where a higher speed regime is observed.

Earlier works have investigated the proportion of stopped vehicles in a population of vehicles circulating within a network, using random observations of vehicle trip time ( $T$ ) and stopped time ( $T_s$ ). From theoretical considerations of flow ( $q$ ), concentration ( $k$ ) and speed ( $v$ ) interrelationships, and recognizing that the urban network traffic is essentially composed of running and stopped vehicles at any point in time, it is possible to characterize the quality of urban network in terms of aggregate traffic indicators departing from the usual measures of highway performance.

The focus of this paper is to develop a model to characterize the quality of urban road networks (not just in terms of a road segment as is normally practiced) and determine the effect of the built-environment's configuration to the measured quality of urban traffic. More specifically, it aims to ascertain how urban space may be organized to improve the overall efficiency of the urban network. In this study, traffic data gathered using random chase-car observations from three cities in the Philippines were analyzed. Prevailing conditions in the observed city road networks, while pervasive in the Philippines, were noted to be unique in the sense that no operational speed limit is recognized and that vehicle interaction (weaving, for instance) is not strictly regulated.

Empirical observations hint to a functional relationship between intersection density and the proportion of stopped vehicles, and consequently, the average amount of time each vehicle circulating in the network is stopped. The physical significance of the pertinent parameters in the functional relationships was also analyzed and explained. Moreover, there is a preliminary indication that the fraction of roadside open spaces may better improve the functional relationship. This additional attribute of urban space is currently being investigated as an extension to the present, together with the current efforts to institute new traffic control procedures.

The findings are, in a way, indicative of the range of possibilities that could improve the quality of urban network performance. These options may range from physical arrangement of urban space, the clustering of lot blocks, and the configuration of access to terminal locations.

This paper is part of an ongoing long-term research which intends to unravel the complexities of urban growth and the resulting quality of transport services. The efforts being expended are targeted at providing policy directions to urban planning and transport development.



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# ARMS CONTROL AND CONFLICT RESOLUTION AS GAMES: NATO-RUSSIA SECURITY COOPERATION FROM 1990-2000

This thesis attempts to utilize a modified reassurance game framework to understand post-Cold War security cooperation in arms control and conflict resolution using the 1990-2000 security relations between the North Atlantic Treaty Organization (NATO) and the Russian Republic as case studies. It contends that arms control and conflict resolution are linked via their effects on the resources each actor allots for defense and their perception of each other's trustworthiness. Thus, success in one area of security cooperation will result in increased probability of success in the other area while failure to cooperate in the first area makes future cooperation in the other area very difficult.



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# AN EXPLORATORY SURVEY OF EVENTS MARKETING ACTIVITIES IN THE PHILIPPINES: SUCCESSES AND FAILURES

This descriptive case study explores events marketing activities in the Philippines that have either succeeded or failed. Ten successful events and ten unsuccessful events were thoroughly reviewed on the basis of their concept, mechanics, pre-event, event, and post-event activities. After assessing the individual cases, an overall assessment was done to arrive at the dos and don'ts in conducting an event. As the study shows, critical factors for the success of an event include organized planning at all levels of production, teamwork, strategy, integrated marketing communications, dedicated crew, crowd-drawing talents, interactive and spontaneous speakers, and a profitable venture. The task for events organizers is to excel further in their craft so that successes will continue and failures will be avoided.



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# EXPLORING THE EXISTENCE AND MEASURING THE COMPONENTS OF THE GENDER WAGE DIFFERENTIAL IN THE PHILIPPINES USING DESIGN-BASED ESTIMATES

Using data from the Labor Force Survey of the third quarter of 1994 and the Family Income and Expenditures Survey of the same year, this paper estimates the size of the gender wage differential and its components. Separate wage regressions for male and female workers are performed with a design-based maximum likelihood method on a specification that controls sample selectivity. Jackknife replication procedures are employed to generate design-consistent standard errors. The results indicate that the observed gross wage

differential was 21.5 percent and the selectivity-corrected gender wage differential was 16.6 percent of the hourly wage of the average female worker. Estimates of the components of the wage differential suggest that gender discrimination in the labor market may distort the selectivity-corrected male-female wage ratio by as much as 27.7 percent, but women compensate by being more productive than men by as much as 8.7 percent.



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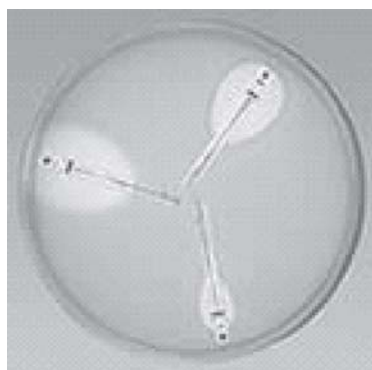
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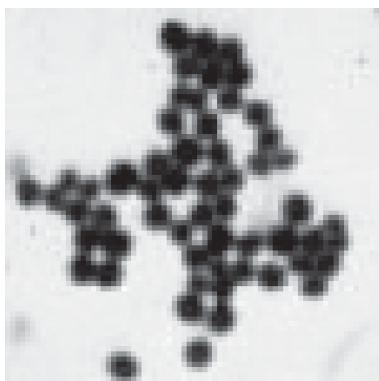
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# ANTIBIOGRAMS OF NOSOCOMIAL STAPHYLOCOCCAL ISOLATES FROM THE PHILIPPINE GENERAL HOSPITAL



Sample E-Test strips used



Staphylococci as seen under the microscope



Growth of staphylococci in mannitol salt agar

The antibiograms of 68 staphylococcal isolates obtained from the Philippine General Hospital from January to March 2001 were determined by employing the National Committee for Clinical Laboratories Standards (NCCLS)-recommended disc agar diffusion technique and minimum inhibitory concentration (MIC) determination of selected antimicrobials through E-test strips. Results revealed that the isolates were mostly resistant to penicillins, oxacillin and trimethoprim. About 7% and 67% of coagulase-positive and coagulase-negative isolates were multiple drug-resistant strains. They were resistant to at least four

antimicrobials tested. Resistance to wide chemical classes of drugs was demonstrated by these isolates. Levels of resistance were shown to be higher among coagulase-negative than coagulase-positive strains. All isolates, however, were susceptible to nitrofurantoin and vancomycin. Nonetheless, isolates with reduced susceptibility to vancomycin with MIC of 4-6  $\mu\text{g/mL}$  were noted. Inducible resistance to clindamycin by erythromycin was also checked among erythromycin-resistant isolates using the double-disc technique. None of the isolates tested showed lincosamide-inducible resistance by the macrolide.



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# ISOLATION, PURIFICATION AND STRUCTURE ELUCIDATION OF SECONDARY METABOLITES FROM CALLUS CULTURES OF *VITEX* *NEGUNDO* L.



*Lagundi* (*Vitex negundo* L.) leaves are known to be effective as antitussive, antipyretic and antiasthmatic, and the active principles underlying these characteristics have been studied. Consequently, this research set out to develop a tissue culture line of this species which could be manipulated to produce the compounds responsible for these activities. In the process, a callus culture was developed which yielded none of the biologically

active flavonoids present in the intact plant. However, since this callus line showed stable morphology and thin-layer chromatographic profiles over several subcultures, further investigation was conducted.

The objectives of this research were to isolate and identify various components of the extracts of *V. negundo* callus culture, and to determine the antimicrobial activities of these extracts.



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# AN OVERVIEW OF THE PHILIPPINE COMPONENT OF THE INTERNATIONAL CORPUS OF ENGLISH (ICE-PH)



The Final Report for this project consists of an overview of the Philippine component of the International Corpus of English (ICE-PH) and two CD-ROMs containing the ICE-PH corpus. Possibly the first electronic corpus produced in the Philippines, ICE-PH comprises nearly one million words of spoken and written English collected between 1990 and 2003. It is one part of a multi-country project involving some 20 countries/regions in which English is spoken as a first language or as an official language. Following a common design in order to make comparative analyses of the corpora possible, each ICE component consists of 500 texts, divided into 300 spoken texts and 200 written texts, each text having about 2,000 words.

Spoken texts are divided into dialogues (direct conversations, distanced conversations, class lessons, broadcast discussions, broadcast interviews, parliamentary debates, legal cross-examinations, business transactions) and monologues (spontaneous commentaries, unscripted speeches,

demonstrations, legal presentations, broadcast news, broadcast talks, speeches not broadcast). Written texts are manuscript (student essays, examination scripts, social letters, business letters) or printed (academic writing in the humanities/social sciences/natural sciences/technology, non-academic writing in the humanities/social sciences/natural sciences/technology, press news reports, administrative writing, skills and hobbies, press editorials, novels and stories).

The texts of ICE-PH are in two CD-ROMs, one each for the spoken and the written categories. Part of each CD-ROM is a database that provides the background data of the Filipino speakers/writers in the corpus.

With the use of a concordancing tool, very detailed grammatical and discourse studies of Philippine English will now be possible, as well as comparative studies of Philippine English and other varieties of English. Local and foreign researchers are invited to make use of the ICE-PH corpus.



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# THE POST-COLD WAR MANAGEMENT OF THE U.S. ALLIANCE WITH JAPAN, SOUTH KOREA, AND THE PHILIPPINES: A COMPARATIVE ANALYSIS



This dissertation maintains that the existing body of theories explaining alliance continuity did not adequately explain the operational factors that account for alliance stability in the post-Cold War era. Using the cases of the United States' alliances in East Asia, this study explains how alliance management plays an important role in enhancing alliance durability or continuity despite the end of the Cold War. The concept of alliance management provides an alternative analytical framework to explain alliance continuity. This framework combines a number of variables in a way that it provides a consistent and more adequate explanation

for alliance duration in the post-Cold War era. It involves using variables incorporating the rational explanation of an alliance as the states' calculated response to an external threat, as well as the irrational elements of domestic politics, bargaining or misperception, etc. The incorporation of these variables into a framework of *alliance management*—the political process by which allies handle their unavoidable disagreements about the changing calculus of alliance benefits and costs—is deemed necessary as politics usually combines the elements of rationality and irrationality.



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# KUWENTUHAN: A STUDY ON THE METHODOLOGICAL PROPERTIES OF PAKIKIPAGKUWENTUHAN

An ethnographic study on the nature, structure, process, and product of *kuwentuhan* was done systematically in order to determine the criteria of quality of *pakikipagkuwentuhan* as a cultural method of research. *Panunuluyan*, a *Sikolohiyang Pilipino* ethnographic technique, was used to enable the researcher to live with the participants in the rural and urban communities during the observation of the conduct of a *kuwentuhan*. *Kuwentuhan* is a naturally occurring phenomenon, a process of sharing and telling stories among individuals to figure out or to make sense about their world and their experiences. Data from the observation of the actual conduct of a *kuwentuhan* event were recorded and kept in journal form and observation summary sheet. The data analysis was conducted as an activity simultaneously with data collection, data interpretation and field note-writing. The observed aspects of a *kuwentuhan* activity were its time, place, group size and characteristics, participants' behaviors, level of interaction, and content of conversation. The *kuwentuhan* is an occasion for exchange of information, ideas, insights, and individual experiences. *Kuwentuhan* is basically a lively and always a happy group discussion in which the participants are actively involved. *Kuwento* (story) is the product of a *kuwentuhan*. The *kapwa* social processes indicate the *kuwenta* (worth) of *kuwentuhan*. The quality of *kuwento* shared in the *kuwentuhan* depends on the quality of the relationship subscribed by individual participants, which is evident in their disclosures and active involvement. Although the level of interaction varies with the topic of *kuwentuhan*, a meaningful *kuwento* results from the genuineness of social interaction. *Kuwentong may kuwenta* is relevant and meaningful data obtained in the *kuwentuhan*. The participants have a sense of ownership of their *kuwento* and each one in the cluster benefits from the *kuwentuhan* activity. *Pakikipagkuwentuhan* could be used as a method for gathering stories.



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