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Making the Link: Providing Academic and Clinical Application Training to Rehabilitation Staff in the Dominican Republic

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Old Dominion University

Gail Grisetti
Old Dominion University

Cathie Barker
Dominion Pediatric Therapy

Michele Donnelly
Dominion Pediatric Therapy

Beverly Khabo
Dominion Pediatric Therapy

Kristin Largena
Dominion Pediatric Therapy

Stephanie Roach
Dominion Pediatric Therapy

ABSTRACT

According to data from the International Autism Epidemiology Network (IAEN; Elsabbah et al., 2012) and the Center for Disease Control (CDC; 2104) the incidence of Autism Spectrum Disorder (ASD) is increasing in North America and in other countries around the world. As such, Centro de Terapia Integrada para Niños Autistas (TINA), a newly opened outpatient facility functioning as the sole provider of care for approximately 800 children with ASD living near Santiago, Dominican Republic, requested assistance in the training of rehabilitation staff who would be working with these children. Using both academic and clinical resources, an Autism Training Program developed by a team from the United States consisting of professors of special education and physical therapy, as well as clinical pediatric therapists, was provided to the rehabilitation staff at the center. Academic and clinical content was delivered through both virtual learning and an intensive on-site clinical training culminating with a practical examination completed by all staff members. This article discusses the development and implementation of the training, as well as the preliminary outcomes of the training program. Additionally, implications for future directions for similar training in additional counties will be discussed.

Introduction

Autism Spectrum Disorder (ASD) is a neurobehavioral syndrome marked by qualitative impairments of social communication, sensory processing difficulties, and by restricted, repetitive patterns of behavior (American Psychiatric Association [APA], 2013). Over the past several decades, the incidence of ASD has increased significantly in North America and in other countries around the world. According to the Center for Disease Control (CDC; 2014), in the United States alone there was a 123% increase in the prevalence of ASD from 2002 to 2010. Likewise, according to the International Autism Epidemiology Network (IAEN), there has been a substantial increase in the number of children diagnosed with ASD worldwide (Elsabbah et al., 2012). As such, the need for thorough clinical and academic training for professionals working with this unique group of children continues to rise.

In the United States, due to the passage of federal legislation entitled the Education for all Handicapped Children Act (EAHCA) in 1975, all children with disabilities, including ASD, are entitled to a free and appropriate public education. Consequently, children with ASD residing in the United States receive individualized and specialized education from teachers who have received extensive training in not only appropriate teaching strategies and interventions, but also in the understanding of the unique deficits and characteristics associated with ASD itself. This educational opportunity is not available to many children outside the United States, specifically in regions of Latin American and the Caribbean such as the Dominican Republic.

The Dominican Republic is a country in the Caribbean that shares the island of Hispaniola with Haiti. The Dominican Republic is the second largest nation in the Caribbean and boasts a population of over nine million people (The Embassy of the Dominican Republic in the United States, 2014). Although the Dominican Republic has a free and compulsory public school system in place for children ages 3-17, they do not offer special education services to children diagnosed with learning, neurodevelopmental, or psychological disorders. Children who are unable to be successful in the public school settings without specialized assistance are not permitted to attend and are often left to the care of outpatient treatment facilities located throughout the country (The Embassy of the Dominican Republic in the United States, 2014). One such multisite rehabilitation center, Patronato Cibao de Rehabilitacion in Santiago, Dominican Republic saw such a need for specialized care for children with ASD that through an international grant submitted by Patronato to the Japanese government, a satellite outpatient facility called the Centro de Terapia Integrada para Niños Autistas (TINA) was opened in the summer of 2013. The purpose of this new outpatient facility was to provide specialized treatment to the nearly 800 reported children living in or near the city of Santiago diagnosed with ASD. Once the building was complete and a full-time rehabilitation staff was hired, the director of TINA reached out to a non-profit organization housed in the United States to provide assistance in the stocking of the facility and the training of rehabilitation staff who required advanced knowledge and skills in working with children with ASD. Because of a long-standing relationship between the non-profit organization and a public university in southeastern Virginia, a unique partnership between the School of Physical Therapy, Department of Special Education, and Center for Global Health at the university, along with a local Pediatric Therapy center specializing in the treatment of children with ASD was created.

Request for Assistance

Initial inquiries by the director of the TINA Center surrounded the furnishing of the actual facility with therapeutic and recreational equipment and supplies appropriate for children with ASD. Through virtual meetings held via video technology (e.g. Skype[®]), members of the team of professionals from the University in the United States consulted and collaborated with the director of the TINA Center to purchase items necessary to aid in the treatment of children with ASD (i.e. therapy balls, swings, scooter boards, weighed vests, brushes, diagnostic tools, etc.). Once all of the supplies were received and placed appropriately throughout the center, the treatment of children began. Although the rehabilitation team employed by the center began successfully serving children with ASD in Santiago, the director of the TINA Center noted that despite the fact all staff members were college graduates and certified therapists, none had specialized training in the treatment of children with ASD. Because no two children diagnosed with ASD have the same challenges and deficits, overall treatment of this disorder is not uniform across children. Instead, treatment must focus upon the individual child's core deficits in the areas of communication, socialization, behavior, & sensory processing (APA, 2013). As such, rehabilitation services should be provided in multiple discipline areas such as Occupational Therapy, Speech Language Therapy, Physical Therapy and Developmental, or Cognitive Therapy (Donaldson & Stahmer, 2014). Consequently, a request was made by the director of the TINA center to the collaborative team in the United States, to receive training in academic knowledge and clinical skills specific to providing treatment to children diagnosed with ASD. In response to this request, using both academic and clinical resources, an Autism Training Program was developed by a collaborative team consisting of professors of special education and physical therapy, as well as clinical pediatric therapists, to provide ASD specific training to the rehabilitation staff at the TINA Center. This hybrid module of training consisted of both asynchronous and synchronous instruction which has shown promise in recent years as a valid method for providing training to learners located at a distance (Marder & deBettencourt, 2012; Buzhardt & Heitzman-Powell, 2005)

Academic Module Training

The collaborative team determined it was necessary to provide essential academic skills instruction to the TINA staff first. As such, initial academic skills training focused upon the education of the rehabilitation staff on the characteristics of children with ASD, as well as the theoretical models of best practice educational interventions for this unique population. This intensive training was delivered asynchronously, via distance learning, in the form of three compact disc (CD) modules which were created by the professor of special education and delivered to the director of the TINA Center via a parcel service. Specifically, Module 1 pertained to the history and etiology of ASD, Module 2 focused upon the social communication deficits seen in children with ASD, and Module 3 addressed the unusual behaviors and sensory processing deficits commonly seen in this population. Each module contained modified content gleaned from graduate-level university coursework in special education specific to teaching children with ASD. Additionally, each module contained references to the Carolina Curriculum, a curriculum-based tool which assesses infants and toddlers on five domains of child development: cognition, communication, social adaptation, fine motor skills & gross motor skills (Johnson-Martin, Hacker, Attermeier, 2004). Module content included descriptive text in the

form of a 60-90 slide PowerPoint presentation with supplemental notes and pictures to increase comprehension. In addition to academic content, each module contained a 25-question pre-test, to ascertain the knowledge level of the rehabilitation staff prior to the module training, and a 50-question post-test to determine the level of learning that occurred following the completion of each module. Although all TINA staff members understood written English, in an effort to increase understanding of the material by the rehabilitation staff, all written information, including module content and examinations, was translated from English into Spanish. Modules were delivered to the TINA center in numerical order with each subsequent module being presented once all members of the rehabilitation staff completed the previous module and achieved a minimum passing score of 85% on the module post-test examination.

Because module training delivered via a CD format was a novel experience for members of the rehabilitation staff at the TINA center, the university team members of the collaborative training team from the United States traveled to the Dominican Republic to demonstrate and educate the staff on the use of the module training materials. This training encompassed presentations and hands-on demonstration of the use of the module materials and examinations. In addition to introducing the rehabilitation staff to the module training, this initial three day on-site visit to the TINA center allowed the university members of the collaborative training team to tour the center and provide input and feedback to the director regarding the set-up of the therapeutic equipment. Finally, this visit allowed the families of the children receiving treatment at the TINA center the opportunity to question the university members of the collaborative training team regarding appropriate intervention options for their children. Through the assistance of a Spanish-English translator, this question and answer session lasted approximately two hours and focused upon suggestions for behavior interventions and methods for increasing social communication.

Immediately following the visit by the university team members, the rehabilitation staff at the TINA Center began the CD module trainings. Prior to the delivery of a module, each member of the rehabilitation staff was given a pre-test to ascertain their current knowledge level. Once the pretest was completed, a copy of the CD of appropriate module was shared, beginning with module one. Each staff member received a copy of the CD module for personal use. If the staff member did not have access to a computer, the director allowed the staff member to review and study the information using one of the computers at the TINA Center. The staff was given three weeks to study and review the material for each module before meeting as a group to take the post-test examination. Following the completion of the post-test examinations, both the pre-test and post-test answer sheets were scanned and emailed to the university team members for scoring. As the examinations were scored and a level of 85% was reached by all members of the rehabilitation staff, the director of the TINA Center was notified and the pre-test for the subsequent module was delivered. The testing and module delivery protocol was repeated for modules two and three. Overall, the module training process spanned three months with three weeks for review and testing of the modules by the rehabilitation staff and one week for scoring by the university team members.

On-Site Clinical Training

Following the return of the university team members from the Dominican Republic, preparation for the next phase of the training began. In addition to academic training delivered

asynchronously, the collaborative training team created a clinical training to be delivered synchronously- on-site at the TINA Center. Initially, this training encompassed the creation of Powerpoint presentations by clinical specialists from physical therapy, occupational therapy, and speech language pathology. These Powerpoints trainings contained educational information on the delivery of therapy to children with ASD, as well as segments of samples videos filmed during actual therapy sessions. The sample videos demonstrated therapists working with children with ASD while the therapists narrated the interventions and strategies being executed. In order to ensure consistency in the delivery of materials to the staff at the TINA Center, the university team members and clinical specialists met on several occasions to discuss and revise the presentations. Once individual presentations were created and finalized for each discipline, occupational therapy, physical therapy, and speech therapy, the presentations were translated into Spanish and printed in note format for the staff at the TINA Center. Once preparations for the clinical training were finalized, the entire collaborative team, both university team members and clinical specialists, traveled once again to the TINA center in Santiago, Dominican Republic. While there, the collaborative team conducted an intensive three day, on-site clinical training.

Day One: Day one of the clinical training began with an overview of the workshop and introductions of the clinical specialists which consisted of a group of pediatric therapists from the United States. The initial training began with a brief Powerpoint guided presentation by the clinical specialists on the basic concepts related to assessment of children with ASD followed by discipline specific assessment presentations conducted by each clinical specialist. First, the clinical specialist's occupational therapist (OT) presented information pertaining to sensory integration and the impact sensory processing difference can have on the assessment and treatment of children with ASD across disciplines. The OT went on to explain specific methods for conducting a successful occupational therapy assessment including direct observation of the child's fine motor skills and sensory responses, as well as, parent report of the same. Next, the clinical specialist's speech language pathologist (SLP) discussed social communication assessment techniques. The SLP touched on topics related to the social communicative components of language (e.g. semantics, pragmatics) and methods for assessing communicative intent (e.g. eye contact, turn taking, intentional speech, etc.). Finally, two physical therapists (PT) from the team of clinical specialists focused on subjects pertaining to the assessment of gross motor development, specifically balance, coordination, and control.

Following the lecture presentations and a break for lunch, the clinical specialists broke the TINA staff into groups based upon their specialty field. Once in these small groups, the members of the clinical specialist team presented the TINA staff with case demonstrations of discipline specific assessment procedures using video-taped sessions of children with ASD with whom the clinical team worked. At the conclusion of the case demonstrations, the TINA staff was brought back together as one large group to engage in a question and answer session with all members of the collaborative team, both clinical specialists and university team members.

Day Two: Day two of the on-site training began with a brief review of the key points from the previous day. Next, the clinical specialists delivered an overview Powerpoint guided presentation on treatment strategies. The initial phase of the presentation focused on basic strategies included setting up the clinic for intervention, developing a flexible plan, and learning to recognize the tendencies and tolerance levels of the child receiving therapy. Specific examples

presented included fostering sensory awareness during all therapeutic treatment sessions, utilizing a variety of treatment options to address deficiencies, and including powerful reinforcers within treatment sessions to increase child compliance. During the second phase of the presentation, each clinician provided discipline specific examples of treatment interventions for improving the skills of the child with ASD. For example, the OT discussed treatment options related to sensory processing (e.g. calming music, vibration, joint compression), feeding (e.g. oral stimulation), and fine motor skills development (e.g. clay, lacing, beading). The SLP discussed treatment options pertaining to increasing vocabulary (e.g. receptive, expressive) and increasing back and forth interactions (e.g. game playing, conversation turn-taking). And the PTs discussed therapeutic interventions that would promote range of motion (e.g. prolonged squat, tailor sit, twisting), proper gait (ankle weights, leg wraps, tape), and coordination/motor planning (e.g. surface changes, balance beams, tunnels, trampoline).

Similar to Day one, following the lecture format presentation, the TINA staff was again broken up into discipline specific groups led by the appropriate clinical specialists. During these sessions, children with ASD who were clients of the TINA center were brought in to participate in hands-on treatment demonstrations. Initially, the clinical specialists demonstrated discipline specific treatment interventions with each TINA staff group individually. For example, the PT's worked with a child requiring assistance with coordination and balance while the TINA staff PTs observed and asked questions. Likewise, the TINA staff OTs observed as the clinical OT worked with a child who required fine motor practice and the clinical SLP demonstrated techniques to facilitate language with a third child while the TINA staff SLPs watched and asked questions. Following the discipline specific demonstrations, the whole group came back together to observe the clinical specialists working together to co-treat each of the three children. During these treatment demonstrations, the TINA staff was encouraged to ask questions and make suggestions to the clinical specialists regarding the treatment interventions being utilized.

Once the group treatment demonstration was completed, Day two of the workshop ended with a question and answer session between the parents of children receiving treatment at the TINA Center and the entire collaborative team-both the clinical specialists and the university faculty. Similar to the parent meeting that occurred during the initial on-site visit, the majority of questions presented to the team pertained to concerns with stereotypical, self-stimulatory, and ritualistic behaviors. Furthermore, parents requested information on techniques to use at home to decrease inappropriate behaviors, increase appropriate behaviors, and increase social communication skills.

Day Three: With the educative components of the workshop completed, Day three served as a day for both practical and written examination. In order to complete the Autism Training Program, each TINA staff member was required to pass both examination portions. Initially, the TINA staff members were required to complete a practical examination. The TINA staff was grouped into pairs, with each pair consisting of individuals from different disciplines. For example, an OT staff member was paired with either a PT or SLP staff member, but not another OT. Each pair was taken to a treatment room where two members of the collaborative team from the United States were waiting to give the examination. Similar to the grouping diversity of the TINA staff, the collaborative team consisted of individuals from unique disciplines. For example, one PT was paired with the special education university faculty member, the other PT

was paired with the SLP, and the OT was paired with the remaining physical therapy university faculty member. This purposeful grouping of the collaboration team members, who would be evaluating the TINA staff during the practical examination, was to ensure a multi-faceted perspective.

The practical examination was composed of a case study of a child with ASD. Each TINA pair was presented with a choice of five slips of paper, on each of which a unique child was described. The description included details regarding the child's strengths and areas of need in fine motor skills, gross motor skills, sensory processing, and social communication. Once a slip was chosen, the TINA pair was given fifteen minutes to create a proposed treatment plan for the child, including techniques for assessment, treatment, and documentation, across all three disciplines. For example, the TINA pair had to describe how the child would be assessed, introduce specific treatment interventions and demonstrate how the treatment would be executed, and discuss how progress would be documented. At the conclusion of the fifteen minute preparation period, the TINA pair had to present their proposed treatment plan to the collaborative team evaluators. Additionally, the TINA pair had to demonstrate the treatment intervention techniques they would use with the child while explaining why that intervention was chosen. For the practical examinations, the TINA pair was graded as a unit, not individually. Using a rubric, the collaborative team evaluators scored the TINA pair on accuracy and innovativeness and awarded either a passing or failing grade. Following the presentation of the treatment plan by the TINA pair and subsequent private discussion by the collaborative team evaluators, the pair was given their score along with a critique of the treatment plan created.

Once all members of the TINA staff had completed the practical examination, the written examination was administered. The written examination consisted of the TINA staff watching a one hour case-study video of a child with ASD receiving therapy services from each of the clinical specialists. This portion of the examination was completed in a group setting with all TINA staff members completing the examination simultaneously. Prior to the start of the video, each TINA staff member was given an examination handout with a series of questions regarding assessment, treatment, and documentation. The purpose of this examination was to determine if the TINA staff could take the information they had learned over the previous two days and apply it to answering questions about the purpose of each therapy session they viewed on the video. Specifically, they were asked to use both clinical and educational knowledge to evaluate and explain the purpose of strategies/interventions utilized in the videos. The entire video-taped session consisted of three parts, one 20 minute OT session, one 20 minute SLP session, and one 20 minute PT session. Because this series of therapy sessions were recorded explicitly for the purpose of developing the case-study examination, the clinical specialists did not explain the treatment/interventions they were doing with the child. The only dialog included in the video was that of the therapist interacting with the child and vice versa. Once the written portion of the examination was completed, the entire collaborative team, with assistance from Spanish to English translator, briefly skimmed each response sheet in an effort to award a preliminary grade of passing or failing.

Training Completion: TINA staff members were considered successful completers of the Autism Training Program once passing grades on the three module post-tests, practical examination, and written examination were obtained. All successful program finishers were

awarded a certificate of participation verifying the completion of the training program in its entirety. Specifically, the certificate of participation awarded each participant 45-hours of continuing education credit. Additionally, if any member of the TINA staff awarded the certificate of completion traveled to the United States and enrolled in graduate course work at the collaborative university pertaining to teaching children with ASD, they would automatically receive credit for one, three hour graduate course titled Characteristics of Students with Autism Spectrum Disorders.

Preliminary results of Autism Training Program

The results of the pretest and posttest assessments indicated an increase in the ASD knowledge level of the TINA staff. All twenty members of the TINA staff demonstrated an increase in scores for post-test one (M=89.9%, range 60% to 100%), post-test two (M=89.7%, range 72% to 100%) and post-test three (M= 89.5%, range 62% to 100%) when compared to scores for pre-test one (M=64.2%, range 48% to 96%), pre-test two (M=80.6%, range 40% to 96%) and pre-test three (M=80.4%, range 56% to 100%). Following the retraining of a few (N=3) of the participants due to post-test scores below 85%, all 20 members of the TINA staff participated in the intensive three day training provided by the clinical and university collaborative team. Additionally, all ten pairs of the TINA staff who participated in the practical examination were awarded passing scores. According to scoring results, each pair successfully exhibited knowledge and skill through the preparation and demonstration of accurate treatment plans for a child with ASD. Finally, preliminary results of the written examination, discussed by the members of the collaborative training team through a translator, appeared positive; however, all answer sheets for this portion of the examination were brought back to the United States and are in process of being translated into English for final grading by collaborative training team.

Based on the culmination of passing scores on the module posttests, practical examination, and written examination, all 20 members of the TINA staff were considered successful completers of the Autism Training Program. Prior to the departure of the collaborative team from the United States, certificates of participation were awarded to all members of the TINA staff who completed the hybrid training program. Additionally, in recognition for their efforts in fabricating and facilitating the Autism Training Program, each entity from the collaborative team (i.e. the university, pediatric therapy center, non-profit organization) were given a plaque of appreciation thanking each member for their efforts to improve the lives of children in the Dominican Republic with ASD.

Implications for future training

This type of training format represents a unique vehicle for training rehabilitation professionals to care for children with Autism Spectrum Disorder in Spanish speaking countries where limited data may be available on the incidence of the condition but where the clinical community has identified a need. The format provides flexibility for study time and allows participants to review and reflect on the CD content prior to the onsite segment. Recent research has demonstrated the effectiveness of this type of hybrid training model (Nefdt, Koegel, Singer, & Gerber, 2010; Wainer & Ingersoll, 2013). Additionally, this training format has the capacity to

build a foundation of professionals with the ability to train others in their country to care for children diagnosed with ASD.

Summary

Currently, Autism Spectrum Disorder is the most commonly diagnosed developmental disability in young children in the United States (CDC, 2014). Likewise, ASD is growing in numbers in populations around the world (Elsabbah et al., 2012). As such, it is crucial that therapists, rehabilitation staff, and special educators understand effective interventions and strategies to utilize when working with this unique population of children. A thorough training delivered via a hybrid format, containing both asynchronous and synchronous components, may be one method for successfully delivering ASD specific training to individuals working around the globe. Future research should focus on the use of this delivery method as a potential avenue for providing global assistance to specialists in need of additional education and clinical training targeting children with ASD.

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA American Psychiatric Publishing.
- Buzhardt, J., & Heitzman-Powell, L. (2005). Training behavior aides with a combination of online and face-to-face procedures. *Teaching Exceptional Children*, 37(5), 20-26.
- Center for Disease Control. (2014). Prevalence of autism spectrum disorder among children aged 8 years-Autism and Developmental Disabilities Monitoring Network, 11 sites, United States, 2010. *Morbidity and Mortality Weekly Report (MMWR)*, 63(2), 1-21.
- Donaldson, A.L., & Stahmer, A.C. (2014). Team collaboration: The use of behavior principles for serving students with ASD. *Language, Speech, and Hearing Services in Schools*, 45, 261-276. doi: 10.1044/2014_LSHSS 14-0038
- Education for all Handicapped Children Act, 20 U.S.C. §1400 et seq. (1975)
- Embassy of the Dominican Republic in the United States. Retrieved from <http://www.domrep.org/> May 15, 2015.
- Elsabbagh, M., Divan, G., Koh, Y.J., Kim, Y.S., Kauchali, S., Marcin, C., Montiel-Nava, C., Fombonne, E. (2012). Global prevalence of autism and other pervasive developmental disorders. *Autism Research*, 5(3), pg. 160-179. doi: 10.1002/aur.239
- Johnson-Martin, N.M., Hacker, B.J., & Attermeier, S.M. (2004). *The carolina curriculum for preschoolers with special needs* (2nd ed.). Baltimore, MD: Brookes Publishing.
- Marder, T.J., & deBettencourt, L.U. (2012). Using a hybrid model to prepare special educators to teach students identified with ASD. *Rural Special Education Quarterly*, 31(3), 12-19.

Nefdt, N., Koegel, R., DSinger, G., & Gerber, M. (2010). The use of a self-directed learning program to provide introductory training in pivotal response treatment to parents of children with autism. *Journal of Positive Behavior Interventions, 12*, 23-33.

Wainer, A.L., & Ingersoll, B.R. (2013). Disseminating ASD interventions: A pilot study of a distance learning program for parents and professionals. *Journal of Autism and Developmental Disabilities, 43*, 11-24. doi: 10.1007/s10803-012-1538-4

About the Authors

Dr. Jonna Bobzien is an Assistant Professor in the Department of Special Education and **Dr. Gail Grisetti**, PT is an Associate Professor in Physical Therapy at Old Dominion University in Norfolk, Virginia. **Cathie Barker**, PT, **Michele Donnelly**, COTA, **Beverly Khabo**, SLP, **Kristin Largena**, OTR, and **Stephanie Roach**, DPT are all pediatric therapists affiliated with Dominion Pediatric Therapy in Newport News, Virginia. Dominion Pediatric Therapy offers a full range of physical, occupational, and speech therapy services for children.

The Growth Trend of Officially Registered Protestant Churches in China Since 1949¹

Zhaohui Hong
Purdue University Calumet

Jiamin Yan
Purdue University Calumet

Lu Cao
Purdue University Calumet

ABSTRACT

As a quantitative study using statistical and spatial methods, this article addresses growth trend of the registered Protestant churches, excluding non-registered house churches, in the number of churches (supply-side) and congregations (demand-side) of the Protestant market in China since 1949. After introducing the data, methods, and literature review, this article discusses provincial capital cities in China that represent three major regions as case studies designed to examine the different growth rates of the Protestant members and the Protestant church numbers since 1949. Building on these methods, the article expands research areas to all thirty-one provincial capital cities and thirty-one provinces among the east, central and west regions of China. Furthermore, this article summarizes the national growth trend of the Chinese Protestant market aimed at mapping the supply of Protestant churches and the demand of Protestant population. Finally, the study integrates relevant data, such as population growth and other three major religions in China, as supplemental references in understanding the church supply and the Protestant demand.

Key words: Religious Market, Chinese Protestants, Demand and Supply, Spatial Religious Studies

I. Introduction

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The growth of officially registered Protestant churches has encountered several critical milestones since the establishment of the People's Republic of China in 1949, the year that represented the victory of the atheist Communist Party. However, Deng Xiaoping's era of the reform and opening since 1978 has initiated "Christianity Fever" (Fiedler, 2010) and reopened the Protestant churches in 1979. The changing political regimes and religious regulations have profound impacts on the growth trend of officially affiliated churches and, consequently, affected demand and supply of the Protestant market that serve as a window in understanding Chinese religion and society since 1949.

In an effort to map a comprehensive picture of officially registered Protestant churches, this study compares the differences between the number of Protestant churches (supply side) versus Protestants (demand side) through a descriptive statistic and horizontal perspective during the same time period. Concurrently, the study uses a historical and vertical perspective to address the development of the Protestant market across various historical periods since 1949 to analyze differences in their growth rates. In addition to illustrating valuable information concerning the supply and demand of Protestant market, a spatial study of this nature provides added values to integrate other relevant data, such as population growth and other major religions in China as supplemental references in understanding the church supply and the Protestant demand.

This article will discuss three provincial capital cities representing three major regions of China as case studies designed to examine the changing Protestant members and church numbers since 1949. Relying on the similar research methods, the study expands research area from the three representative cities to all thirty-one provincial capital cities in China focusing on the growth rates of both Protestant members and church numbers from 1949 to 2004. The geographic areas will be expanded further from the thirty-one provincial capital cities to thirty-one provinces among the east, central, and west regions of China to discern patterns of Protestant development between provincial capital cities and provinces. Finally, this article will summarize the national characteristics of the Chinese Protestant market aimed at mapping the supply of Protestant churches and the demand of Protestant population. Hopefully, the statistical and spatial study of Chinese Protestantism will shed light and offer new insights and understanding where the religious market and religious economy in China are concerned.

II. Literature Review

Introduced by Stark and Bainbridge (1985), the theory of religious market has inspired various scholars' research interests in the relationship between the supply of religious sites and the demand of religious members (Iannaccone 1991; Stark et al 1994; Sherkat et al 1995; Stark et al 2000; Bankston 2003; Jelen 2003; Finke et al 2005; Yang 2006). Defined by Finke and Stark (2003:100), the religious market and economy are consisted of "all the religious activity going on in any society, including 'market' of current and potential adherents, a set of

one or more organizations seeking to attract or maintain adherents, and the religious culture offered by the organization(s)."

The first contribution of the religious market theory is to divide religious development into two dimensions, such as demand and supply following conventional economic theory. According to Paldam and Gundlach (2010:33), "Religion is demanded as a factor of production and for consumption. Religion is supplied by institutions, which are termed churches for brevity." The theory stresses the causal relationship between church (supply) and Protestants (demand). In Opfinger's view (2011:2), as a healthy and competitive religious market, while the demands for religious goods are higher, "the supply of religious goods will also be higher" as a single church cannot earn positive profits. Similarly, "with greater religious diversity, the overall level of religiosity should increase." Li (2008:59) also applied this understanding on Chinese religious market and believed that "China's religion and belief constitute two market structures: one is the supplier structure which is formed by institutional religion, and the other is the demander structure which is formed by private belief." Thus, the balance of demand of Protestants and supply of Protestant churches is critical to maintain and promote religious dynamics and diversity.

In addition, the religious market theory addresses the invisible adjustment and adaptation of religious demand and supply. One fact that remains true is "when the relative number of churches began to rise, the rates for church membership, Sunday school enrollment, church attendance, and local church expenditures sharply increased" (Finke 1997:122). Some case studies indicate that although there has been a pattern of religious dysfunction China, the suppliers of the religious market, to some extent, are able to adapt to meet changing demand. The key driving force for this invisible hand, in McBride's view (2010:161), is economic growth which "potentially affects both the demand and supply sides of an open religious market, and it can do so in a manner that produces countervailing influences." However, the key condition for the function of self-adaptation is to have an open religious market with competitive forces that "can lead denominations to adapt to changing demand and supply conditions, thereby keeping religion alive despite forces leading to secularization" (McBride 2010:167).

Furthermore, the religious market theory pays special attention to one factor of supply-side marketing that is religious regulations. Many scholars strongly believe that state regulation is vital in affecting religious supply (Yang 2006; Chaves et al 1994:1088; Iannaccone et al 1997:351). In Finke's view (1997:124), for instance, "Whether the religious change involves private practice or public expression, supply-side explanations look for changes in regulations, opportunities, and incentives." As Klein and Meyer argued (2011:532), China's marketization of religion "is offset by a growth of religious movements and groups who explicitly offering 'non-market forms of sociality.'" In other words, "religious change must be attributed not to changes in religious demands, but on the contrary, to shifts in religious supply." The China cases seem to verify that regulations matter to limit the growth of new church constructions, particularly for officially registered churches in 1949, 1978, and 1999 when government regulations played either positive or negative roles in the supply-side of

religious market. As McBride indicates (2010:149), religious regulations, including prohibiting religious entry, "can yield high participation for religious monopolies even in the face of possible negative effects of economic growth on religion."

It seems that few, if any, scholars who are applying religious market theory are addressing the supply-side of Protestant market in China quantitatively and statistically. Obviously, the top priority for the study of the Chinese Protestant market is to collect comprehensive and statistical data about the Protestant churches and Protestant population since 1949 instead of applying the theory of religious market without sufficient quantitative studies. With regard to the Protestant market, scholars must understand *what* it is before they can interpret *why* it is. Therefore, in addition to using historical and comparative approaches, this article focuses on the statistical, spatial, and quantitative perspectives in studying the balance of the Protestant church as the supply-side of market and the Protestants as the demand-side of market in China since 1949. While the study has plans to develop additional research projects to conduct qualitative analyses on the Chinese religious market, it is urgent now to turn research attention to the quantitative findings.

III. Data

It is worth clarifying the concepts and data for this study in an attempt to avoid possible confusions. First of all, in light of the lack of data about non-registered churches, house churches in China, this article has to focus on officially registered churches, the so-called Three-Self Patriotic Movement (TSPM) because it is almost impossible to collect accurate information concerning these "underground" churches at the current stage. Although missing house church would make the study of Chinese Protestant market incomplete and inaccurate, the growth trend of the TSPM is still valuable to understanding the demand and supply of government sponsored Protestant churches.

In addition, the definition of church in this article refers those officially affiliated churches which have status of a legal person. In other words, demonstrated by the official data released in 2004, the current officially registered church focuses on the registered "religious activity venue" (*zongjiao huodong changsuo*) instead of the registered meeting points" (*jiuhuidian*). Given that there are numerous "small religious groups" in many cities and townships associated with the official TSPM, the official data doesn't list them as a church due to its small members or informal organization.

Furthermore, although the size of church matters while evaluating demand and supply of Protestant market, it is almost impossible to receive the accurate information concerning the size of each individual church. Therefore, this study has to calculate the average size of each church based on the total number of church and church members.

Finally, with respect to the definition of "Protestants," this study has used the official report of Chinese Protestants in 2009 which bases on its nationwide survey (Research Project Team 2010). In other words, the number of Protestants here relies on respondents' self-claiming while asking if you believe Protestant. Thus, "Protestants" here are not necessarily "a Protestant church member" or "Protestant church members of congregations affiliated with the TSPM." Most congregations associated with the TSPM don't have their church membership.

Needless to say, the most difficult work for the study is to find reliable and comprehensive data concerning the changing numbers of Protestants since 1949. Although many scholars are suspicious about Chinese official data, the fact remains that scholars have not reached any consensus concerning non-official data of Chinese Protestants. While we are aware of this dilemma and the existence of deficiencies in the official data, we have chosen to move forward with the official data--carefully and selectively--as the second-best option.

This article is primarily relying on the following data points as key references concerning Chinese Protestants: 1) the Chinese official census data since 1949; 2) the total number of Chinese Protestants revealed by an official research institute, the Chinese Academy of Social Sciences, in 2009 (Research Project Team 2010); 3) the number of Protestants in each province and their average percentages of the total population released by a Hong Kong-based religious organization, the Amity Foundation (2004), and Ying's article (2009); and 4) the number of Protestants in some specific cities and provinces issued by the county and city Gazetteers (*fang zhi*).

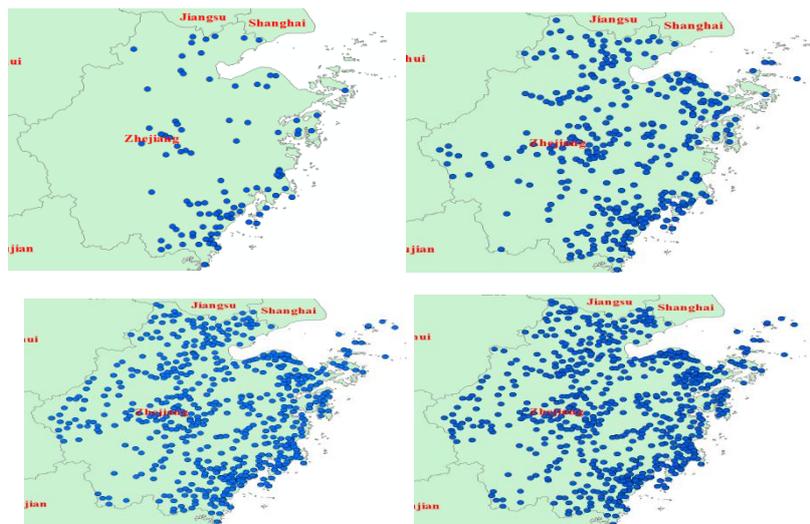
As for the data of Chinese Protestant churches this study benefits from the *2004 China's Economic Census Data with GIS Maps* (China Census Bureau 2005) and the "Spatial Explorer of Religion" (<http://141.211.24.146/ReligionExplorer2/TestReligion17/index.html#>) sponsored by the University of Michigan and Purdue University. Meanwhile, our research has benefitted from various official information concerning Buddhism, Islamism, Taoism, and economic data as supplemental resources.

IV. Case Studies in the Three Selected Cities in China

To measure the gap between demand and supply of the Protestant market in China, it is necessary to figure out the different growth rates of both Protestants and Protestant churches. Presumably, if the growth rate of Protestants (demand) is faster than Protestant church (supply), one can imply that the demand exceeds supply and the shortage of churches becomes evident. Applying this perspective from the bottom upwards, the study will select one provincial capital city in each of three Chinese regions (east, central, and west) to compare the different growth rates between Protestants and Protestant churches in 1949, 1985, 1997 and 2004 due to the availability of spatial and statistical data.

Hangzhou, a provincial capital city of Zhejiang province, serves as our exemplar in east China. Since the area of Hangzhou city has changed several times since 1949 due to the redistricting, it is hard to visualize the locations of its churches throughout 1949, but this study is able to show the Protestant church sites at the level of Zhejiang province since 1949. Map 1 demonstrates the changing numbers and locations of Protestant churches in Zhejiang in 1949, 1985, 1997, and 2004, respectively. Map 2 shows spatial locations of Protestant church in Hangzhou in 2004.²

Map 1: Church Sites in Zhejiang in 1949 (top left), 1985 (top right), 1997 (bottom left), and 2004 (bottom right)



Map 2: The Church Sites in Hangzhou in 2004

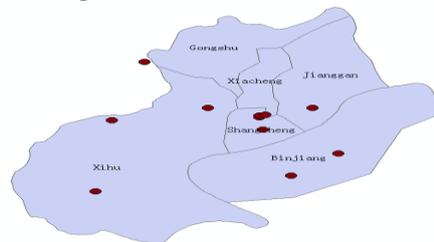


Table 1 demonstrates the information concerning the Protestant church number and the growth rate in Hangzhou since 1949 while Table 2 lists the information about the changing Protestant population and growth rate,³ and Table 3 indicates the density of Protestants per church in Hangzhou city during the four different periods.

Table 1: The Protestant Church Numbers and Growth Rates in Hangzhou

² All information about the Protestant churches at the levels of city, province, and nation in this article came from *The 2004 China's Economic Census Data with GIS Maps* (Beijing: All China Market Research Co., LTD, 2005).

³ Except for special notes, all information about the Protestant population in this article came from Ying (2009) and the Amity Foundation (2004).

Year	1949	1985	1997	2004
Church Number	2	7	10	11
Growth Rate	0%	250%	43%	10%

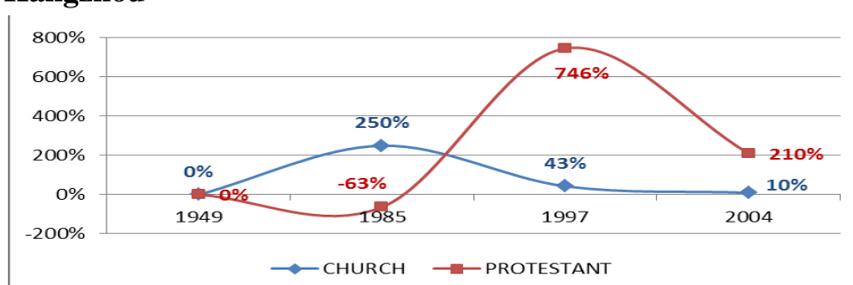
Table 2: The Protestant Population and Growth Rates in Hangzhou

Year	1949	1985	1997	2004
Hangzhou	16,308	6,000 ⁴	50,768	157,423
Growth Rate	0%	-63%	746%	210%

Table 3: The Density of the Protestants per Church in Hangzhou

Year	1949	1985	1997	2004
Hangzhou	8,154	857	5,077	14,311
Growth Rate	0%	-89.5%	492%	182%

Figure 1: The Growth Rate Comparison between the Protestants and the Church Numbers in Hangzhou



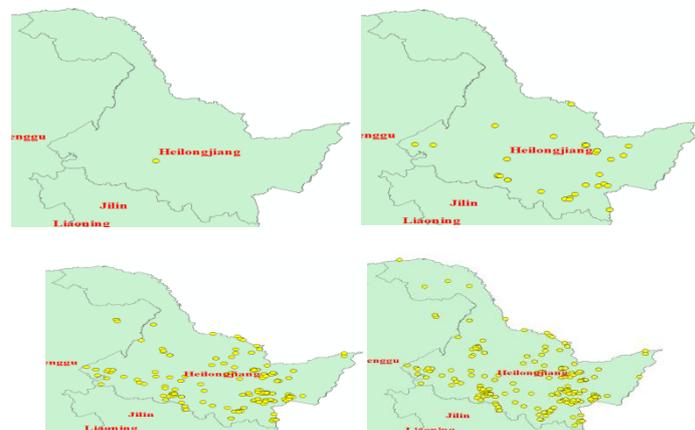
Tables 1, 2, 3 and Figure 1 above have demonstrated several meaningful findings. First, according to the density of Protestant, the year 1985 was the best because by average there were 857 Protestant per church in Hangzhou, although its church members in 1985 were 63% less than that in 1949 (see Table 3). This density of Protestants represents that the gap between supply and demand has been improved and the supply of church has increased by 250% from 1949 to 1985 (see Figure 1). Second, indicated by Figure 1, the year 1989 might be the turning point regarding the relative decline of church supply and the relative growth of Protestants' demand because it generated the first crossing point about the growth rate between church numbers and Protestant members in 1989. Third, given the escalation of Protestants since 1989, the growth of Protestants has been always higher than the growth of churches although the expansion of Protestants began to slow down after 1997 (see Figure 1). Fourth, the year 1997 may represent the climax in terms of the growth rate of Protestants because it increased by 746% between 1985 and 1997, and after 1997 the growth rate

⁴ Source: Editorial Committee, *Hangzhou Minzu Zhongjiao zhi* [Annals of Ethnic and Religions in Hangzhou] (Hangzhou: Hangzhou Press, 2010), chapter 4, section 3.

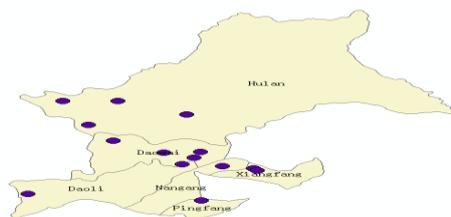
dramatically declined (see Table 2). Finally, we may conclude that since the 1990s the Protestant market in Hangzhou could be characterized by demand over supply because the density of Protestants increased by 15.7 times (857 vs. 14,311) (see Table 3) and the Protestants increased by 25 times (6,000 vs. 157,423) (see Table 2), but the church number rose by 57% (7 vs. 11) only from 1985 to 2004 (see Table 1).

In addition to a city in the east region, Harbin, capital of Heilongjiang province, is selected as an example of the central region, to see if it has some similar patterns as Hangzhou in the east region. To be sure, some scholars may believe that Heilongjiang and Harbin should be part of east region or Northeast region. However, following the official guidelines for the three regions in China, Heilongjiang is part of the central region. Maps 3 and 4 illustrate the spatial information about church sites in Heilongjiang province and in Harbin city.

Map 3: The Church Sites in Heilongjiang in 1949 (top left), 1985 (top right), 1997 (bottom left), and 2004 (bottom right)



Map 4: The Church Sites in Harbin in 2004



Following the similar method and data calculation, Tables 4, 5, 6 and Figure 2 summarize the changing Protestants and churches since 1949 in Harbin.

Table 4: The Protestant Church Numbers and Growth Rates in Harbin

Year	1949	1985	1997	2004
Church Number	1 (1950) *	2	7	14
Growth Rate	0%	100%	250%	100%

*Granted that there was no church data in 1949, we have selected the available data in 1950.

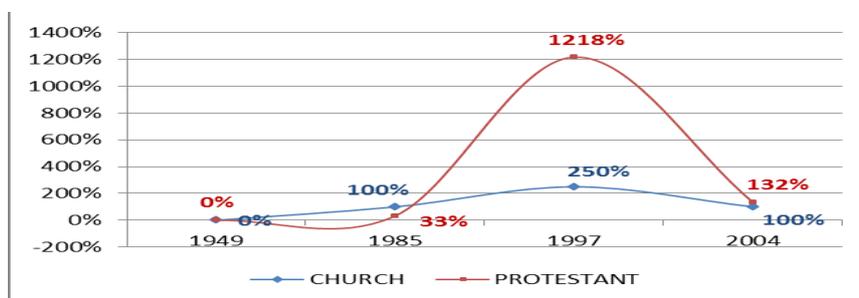
Table 5: The Protestant Population and Growth Rate in Harbin

Year	1949	1985	1997	2004
Protestant Population	1,575	2,100 ⁵	27,668	64,310
Growth Rate	0%	33%	1,218%	132%

Table 6: The Density of Protestants per Church in Harbin

Year	1949	1985	1997	2004
Harbin	1,575	1,050	3,953	4,594
Growth Rate	0%	-33.33%	276.44%	16.22%

Figure 2: The Growth Rate Comparison between Protestants and the Church Numbers in Harbin, 1949-2004



Harbin city has revealed similar meaningful findings as Hangzhou city through Tables 4, 5, 6 and Figure 2 above. First, according to the density of Protestant, the year 1985 was the best because there were 1,050 Protestants per church in Harbin although its church members in 1985 were 33% more than that in 1949 (see Table 6). The density of Protestants shows that the disparity between the Protestant supply and demand has been improved and the supply of church has been increased by 100% from 1949 to 1985 (see Figure 2). Second, illustrated by the Figure 2, the year 1986 instead of 1989 like the Hangzhou city, might be the turning point regarding the relative decline of church supply and the comparative growth of Protestants' demand because it displayed a crossing point in 1986 about the growth rates between church number and Protestants (see Figure 2). Third, since 1986, the growth of Protestants was always higher than that of church although the expansion of Protestants began to slow down after 1997 (see Figure 2). Fourth, the year 1997 may signify the best moment in terms of the growth rate of Protestants because the Protestant population increased by 12 times between 1985 and 1997 (2,100 vs. 27,668), but its growth rate sharply declined after 1997. Finally, we may offer a tentative conclusion regarding the Protestant market in Harbin. Harbin could be characterized by the demand of the Protestant population over the supply of Protestant churches since 1985 because while the number of Protestants rose by more than 12 times (2,100 vs. 27,668) (see Table 5), the number of churches increased by only 7 times (2 vs 14)

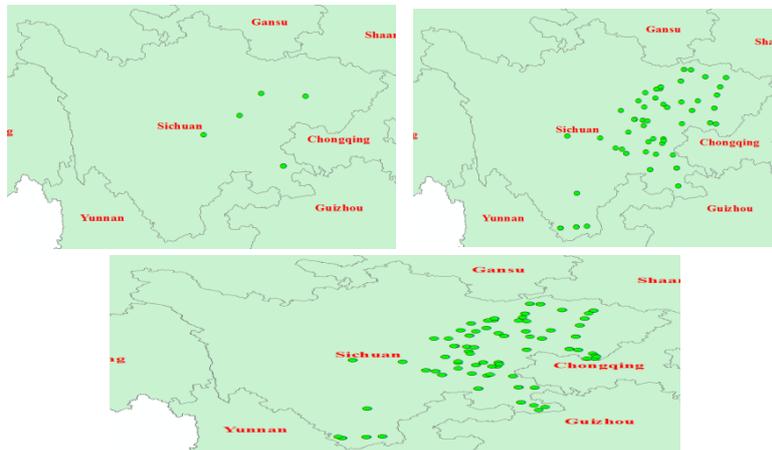
⁵ Yue Yuquan, ed., *Harbin shi zhi: Zongjiao fangyan* [Annals of Harbin City: Religions and Dialect] (Harbin, Heilongjiang: Heilongjiang Renmin Chubanshe, 1998), 131.

(see Table 4), and the density of Protestants increased by 337.5% (1,050 vs. 4,594) (see Table 6).

After examining two provincial capital cities in the east and central regions, the study now turns its attention to a city in the west region. Chengdu, the provincial capital city of Sichuan province, is a good representation of west China due to its popularity of Protestants and economic importance of the region. Since it is not available to have its Protestant information in 1985 in Sichuan, the study has to select 1949, 1997, and 2004 as the representative periods for its changing Protestants and church numbers.

Similarly, spatial church patterns in Sichuan province and the Chengdu city are demonstrated by Maps 5 and 6. Also, their information regarding church numbers, Protestants, their growth rates, and its density of Protestant population have been listed in Tables 7, 8, 9 and Figure 3.

Map 5: The Church Sites in Sichuan in 1949 (Left Top), 1997 (Right Top), and 2004 (Bottom)



Map 6: The Church Sites in Chengdu in 2004

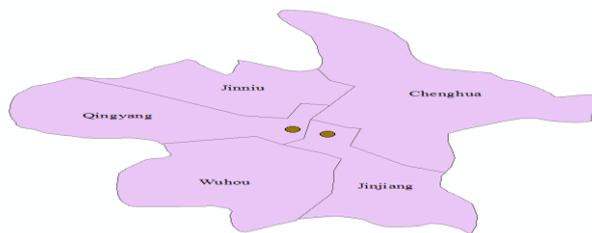


Table 7. The Church Numbers and Growth Rates in Chengdu

Year	1949	1997	2004
Church	1	2	2
Growth Rate	0%	100%	0%

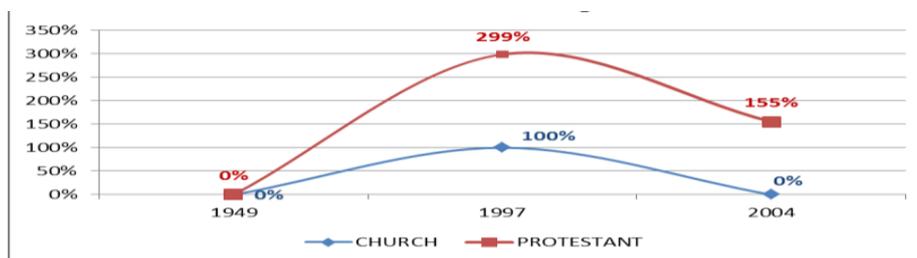
Table 8. The Protestant Population and Growth Rate in Chengdu

Year	1949	1997	2004
Protestant Population	2,871	11,456	29,266
Growth Rate	0%	299%	155%

Table 9: The Density of Protestants per Church in Chengdu

Year	1949	1997	2004
Chengdu	2,871	5,728	14,633
Growth Rate	0%	99.51%	155.46%

Figure 3: The Growth Rate Comparison between the Protestant Members and the Church Numbers in Chengdu



Tables 7, 8, 9 and Figure 3 above have illustrated important data for further discussion. First, according to the density of Protestant members, the year 1949 was the best because on average there were 2,871 Protestants per church in Chengdu in 1949. However, since 1949, the churches in Chengdu grew increasingly crowded as its density escalated from 2,871 members per church in 1949 to 14,633 members per church in 2004 (see Table 9). Second, as always, the growth rate of Protestants has increased faster than that of the church numbers since 1949, although the growth of Protestant population began to slow down after 1997 (see Figure 3). Third, the year 1997 may represent the historical record high in terms of the growth rate of Protestants because it increased by 299% between 1949 and 1997, but its growth rate dramatically dropped after 1997 (see Table 8). Finally, the Protestant market in Chengdu also can be typified by the demand of Protestants over the supply of Protestant church numbers because while the Protestants increased by more than nine times (2,871 vs. 29,266) (see Table 8), the church numbers rose by 100% (1 vs. 2) only from 1949 to 2004 (see Table 7).

V. The Protestants and Protestant Churches in the 31 Provisional Capital Cities

After examining three individual cities in three different regions in China, it is compulsory to expand our study to all 31 provincial capital cities to see if the aforementioned findings of the

three case studies can be verified and supported by the nationwide provisional capital cities. Excluding Taiwan, Hong Kong, and Macau, mainland China is comprised of three major regions, including east China (11),⁶ central China (8),⁷ and west China (12),⁸ which has 31 provinces and municipalities in total. Given the lack of complete information concerning nationwide Protestantism in 1985 and 1997, we have to focus our data collection and analysis in 1949 and 2004 only. Tables 10, 11, 12, 13, 14, and 15 demonstrate the growth rates for both the Protestant population and church numbers pertaining to the 31 provincial capital cities in three regions.

Table 10: Changing Protestant Churches in Eleven Eastern Provincial Capital Cities, 1949 & 2004

Location	Church Numbers in 1949	Church Numbers in 2004	Growth Rate
Beijing	1	3	200%
Fuzhou	6	27	350%
Guangzhou	2	7	250%
Hangzhou	2	11	450%
Haikou	0	1	N/A*
Jinan	1 (1950)	3	200%
Nanjing	1	2	100%
Shanghai	5	95	1,800%
Shenyang	1	7	600%
Shijiazhuang	1	2	100%
Tianjin	1	15	1,400%

*It is unable to calculate the growth rate due to the benchmark in 1949 was zero.

Table 11: Changing Protestants in Eleven Eastern Provincial Capital Cities, 1949 & 2004

Location	Protestants in 1949	Protestants in 2004	Growth Rate
Beijing	4,000	39,300	883%
Fuzhou	4,930	58,089	1,078%
Guangzhou	5,962	17,998	202%
Hangzhou	16,308	157,423	865%
Haikou	1,399	7,154	411%
Jinan	3,723	44,425	1,093%
Nanjing	6,648	105,760	1,491%
Shanghai	N/A*	151,468	N/A*

⁶ East China includes 11 provinces and municipalities, such as Zhejiang, Fujian, Shanghai, Liaoning, Jiangsu, Beijing, Shandong, Hebei, Guangdong, Tianjin, and Hainan.

⁷ Central China covers eight provinces and municipalities, including Henan, Anhui, Heilongjiang, Jilin, Hubei, Shanxi, Jiangxi, and Hunan.

⁸ West China includes 12 provinces: Yunnan, Chongqing, Shaanxi, Sichuan, Gansu, Guizhou, Xinjiang, Neimenggu (Inner Mongolia), Ningxia, Qinghai, Guangxi, and Xizang (Tibet).

Shenyang	N/A*	69,912	N/A*
Shijiazhuang	2,229	12,820	475%
Tianjin	7,000	19,650	181%

*N/A means no data available or impossible to calculate the growth rate.

Table 12: Changing Protestant Churches in Eight Central Provincial Capital Cities, 1949 & 2004

Location	Church Numbers in 1949	Church Numbers in 2004	Growth Rate
Changchun	1	22	2,100%
Changsha	1(1950)*	2	100%
Harbin	1(1950)*	14	1,300%
Hefei	1(1980)*	4	300%
Nanchang	1(1986)*	2	100%
Taiyuan	2(2000)*	4	200%
Wuhan	1(1984)*	7	600%
Zhengzhou	1(1958)*	10	900%

*Most cities in central China don't have information concerning the Protestants in 1949 so we have to select its earliest data listed in column 2.

Table 13: Changing Protestants in Central Provincial Capital Cities, 1949 & 2004

Location	Protestants in 1949	Protestants in 2004	Growth Rate
Changchun	1,954	40,287	1,962%
Changsha	860	9,516	1,007%
Harbin	1,575	64,310	3,,982%
Hefei	1,119	81,924	7,220%
Nanchang	N/A	19,762	N/A
Taiyuan	1,986	15,542	682%
Wuhan	N/A	65,230	N/A
Zhengzhou	3,109	135,929	4,273%

Table 14: Changing Protestant Churches in Twelve Western Provincial Capital Cities, 1949 & 2004

Location	Church Numbers in 1949	Church Numbers in 2004	Growth Rate
Chengdu	1	2	100%
Chongqing	1	14	1,300%
Guiyang	1 (1956)	3	200%
Huhehot	1 (1987)	3	200%
Kunming	1	4	300%
Lasa	N/A	N/A	N/A
Lanzhou	2	6	200%
Nanning	1 (1951)	2	100%
Wulumuqi	1 (1964)	6	500%

Xi'an	2	4	100%
Xining	1 (1981)	2	100%
Yinchuan	N/A	N/A	N/A

Table 15: Changing Protestants in Twelve Western Provincial Capital Cities, 1949 & 2004

Location	Protestants in 1949	Protestants in 2004	Growth Rate
Chengdu	2,871	29,266	919%
Chongqing	N/A	304,990	N/A
Guiyang	521	22,981	4,312%
Huhehot	541	7,903	1,361%
Kunming	5,788	62,255	976%
Lasa	N/A	N/A	N/A
Lanzhou	N/A	20,313	N/A
Nanning	278	6,343	2,182%
Wulumuqi	200	12,074	5,937%
Xi'an	4,208	65,570	1,458%
Xining	74	6,084	8,093%
Yinchuan	N/A	8,871	N/A

The comprehensive list of Protestant populations and church numbers in 31 provincial capital cities above allows us to compare the average growth rates between three regions. Table 16 has added the total number of churches in each region in both 1949 and 2004 showing their total growth rates. Obviously, the central region ranked the top in its growth rate of Protestant church (622%) even though most of their church information in 1949 was not available. It is worth noting that capital cities in east China witnessed the highest church numbers (173) and the highest growth rate (724%). Demonstrated by Table 17, with respect to the Protestant population, capital cities in east China had their highest number of congregations in both 1949 (52,199) and 2004 (683,999), but its growth rate was lowest (121 times).

Table 16: The Comparison on the Growth Rates of the Protestant Churches in the Thirty One Provincial Capital Cities of the Three Regions, 1949 & 2004

Region	Church Numbers in 1949	Church Numbers in 2004	Growth Rate
East	21	173	724%
Central	9	65	622%
West	12	46	283%

Table 17: The Comparison on the Growth Rates of the Protestant Members in the Thirty One Provincial Capital Cities of the Three Regions, 1949 & 2004

Region	Protestants in 1949	Protestants in 2004	Growth Rate
East	52,199	683,999	1,210%
Central	10,603	432,498	3,979%

West	14,481	241,660	1,569%
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In an attempt to examine the gap between supply and demand of the Chinese Protestant market it is vital to compare the growth rates between the Protestant population and the Protestant church in different regions from 1949 to 2004. Demonstrated by Table 18, as for all three regions, the growth rate of the Protestant population was faster than that of the Protestant churches presented by more Protestant members per church on average. Specifically, indicated by Table 19, the central capital cities had its largest negative gap (-34 times) while the eastern capital cities had a gap of -4.9 times. These negative disparities reveal that the growth rate of Protestants' demand was higher than the growth rate of Protestant church supply in all of Chinese provincial capital cities, which also verify the serious shortage of the Protestant churches in Chinese major cities.

Table 18: The Density of Protestants per Church in the Thirty One Provincial Capital Cities of the Three Regions, 1949 & 2004

Region	Protestants per Church in 1949	Protestants per Church in 2004
East	2,486	3,954
Central	1,178	6,654
West	1,207	5,253

Table 19: The Comparison on the Growth Rate between the Protestants and the Church Numbers in the Thirty One Provisional Capital Cities of the Three Regions

Region	Growth Rate of Church Numbers	Growth Rate of Protestant Population	Growth Rate Difference
East	724%	1,210%	-486%
Central	622%	3,979%	-3,357%
West	283%	1,569%	-1,286%

VI. Changing Protestants and Protestant Churches in the Thirty One

Provinces

As a further step of measuring the demand and supply of the Chinese Protestant market, we can now expand our study from the thirty-one provincial capital cities to the thirty-one provinces through evaluating the changing patterns of the Protestants and the church numbers since 1949. Granted there is more information available about the level of province compared to the level of provincial capital cities, thus we are able to piece together a more complete illustration pertaining to the demand and supply of the Protestant market in China.

Using comparable methods as the study of provincial capital cities, it is necessary to map the development of Protestantism in eight eastern provinces before presenting similar

information in China's central and western provinces. Map 7 shows the spatial maps of eastern provinces in five different years from 1949 to 2004, while Tables 19 and 20 list the statistical information concerning east China's Protestant development since 1949.

Map 7: The Church Sites in Eastern Provinces in 1949 (Top Left), 1978 (Top Right), 1989 (Middle Left), 1999 (Middle Right), and 2004 (Bottom)

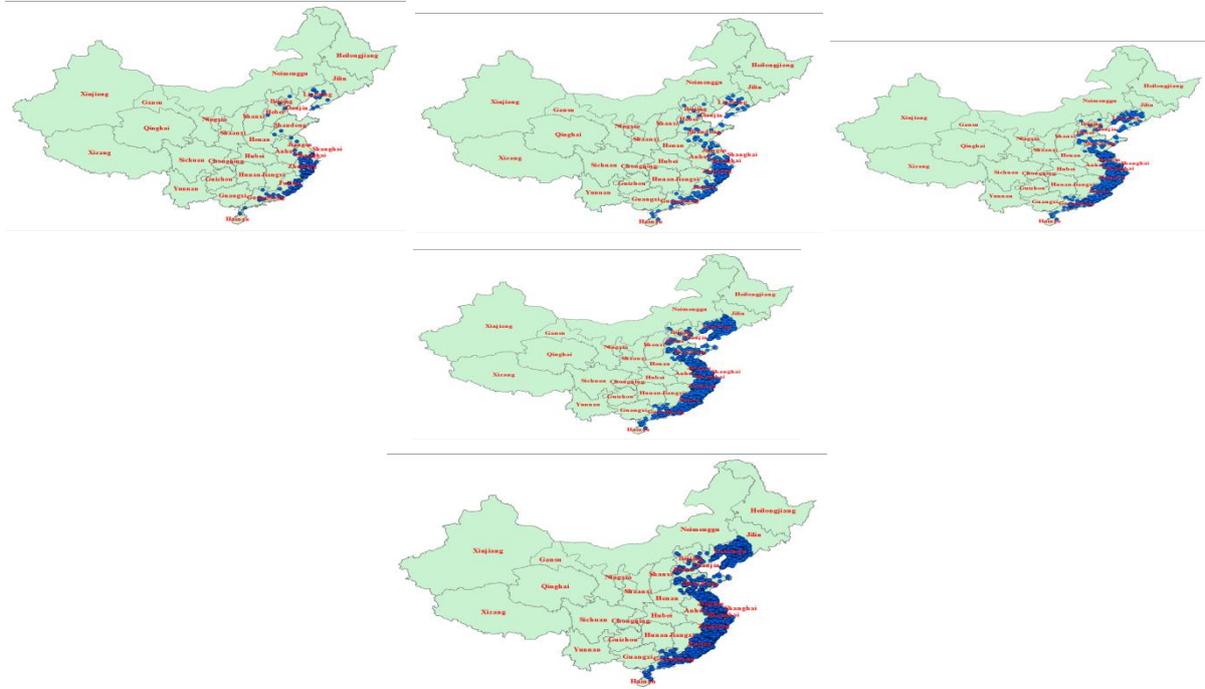


Table 20: The Number of the Protestant Churches in the 11 Eastern Provinces, 1949 & 2004

Location	Church Numbers in 1949	Church Numbers in 2004	Growth Rate
Beijing	1	3	200%
Fujian	68	1,518	2,132%
Guangdong	23	316	1,274%
Zhejiang	153	2,533	1,556%
Hainan	0	4	N/A
Shandong	2	257	12,750%
Jiangsu	5	986	19,620%
Shanghai	5	95	1,800%
Liaoning	12	733	6,008%
Hebei	2	75	3,650%
Tianjin	1	15	1,400%

Table 21: The Protestants in the Eleven Eastern Provinces, 1949 & 2004

Location	Protestants in 1949	Protestants in 2004	Growth Rate
Beijing	4,000	39,300	883%
Fujian	101,833	1,179,000	1,058%

Guangzhou	90,546	262,000	189%
Zhejiang	200,000	1,834,000	817%
Hainan	8,000	39,300	391%
Shandong	100,000	1,179,000	1,079%
Jiangsu	99,784	1,572,000	1,475%
Shanghai	N/A	151,468	N/A
Liaoning	N/A	600,000	N/A
Hebei	70,000	400,000	471%
Tianjin	7,000	19,650	181%

Similarly, Map 8 below shows the spatial locations of all churches in central China during the five different years while Tables 22 and 23 list the information about their numbers of Protestants and churches.

Map 8: The Church Sites in Central Provinces in 1949 (Top Left), 1978 (Top Right), 1989 (Middle Left), 1999 (Middle Right), and 2004 (Bottom)

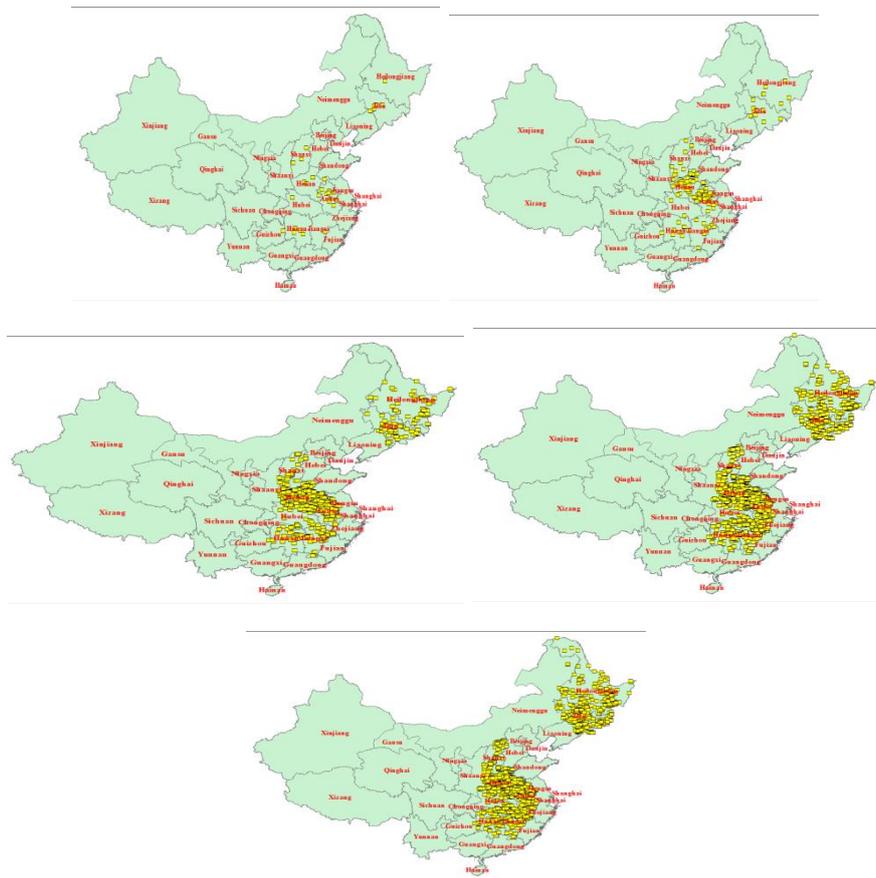


Table 22: The Number of the Protestant Churches in the Eight Central Provinces, 1949 & 2004

Location	Church Number in 1949	Church Number in 2004	Growth Rate
Jilin	5	708	14,060%
Hunan	6	144	2,300%

Heilongjian	1	419	41,800%
Anhui	12	2,052	17,000%
Jiangxi	1	575	57,400%
Shanxi	4	228	5,600%
Hubei	2	159	7,850%
Henan	8	1935	24,088%

Table 23: The Protestants in the Eight Central Provinces, 1949 & 2004

Location	Protestants in 1949	Protestants in 2004	Growth Rate
Jilin	16,820	350,000	1,981%
Hunan	28,444	300,000	955%
Heilongjian	1,5242	600,000	3,836%
Anhui	42,625	3,000,000	6,938%
Jiangxi	N/A	400,000	N/A
Shanxi	26,000	200,000	669%
Hubei	N/A	500,000	N/A
Henan	120,000	5,000,000	4,067%

Correspondingly, data concerning the western region is demonstrated by Map 9, Table 24, and Table 25 below.

Map 9: The Church Sites in Western Provinces in 1949 (Top Left), 1978 (Top Right), 1989 (Middle Left), 1999 (Middle Right), and 2004 (Bottom)

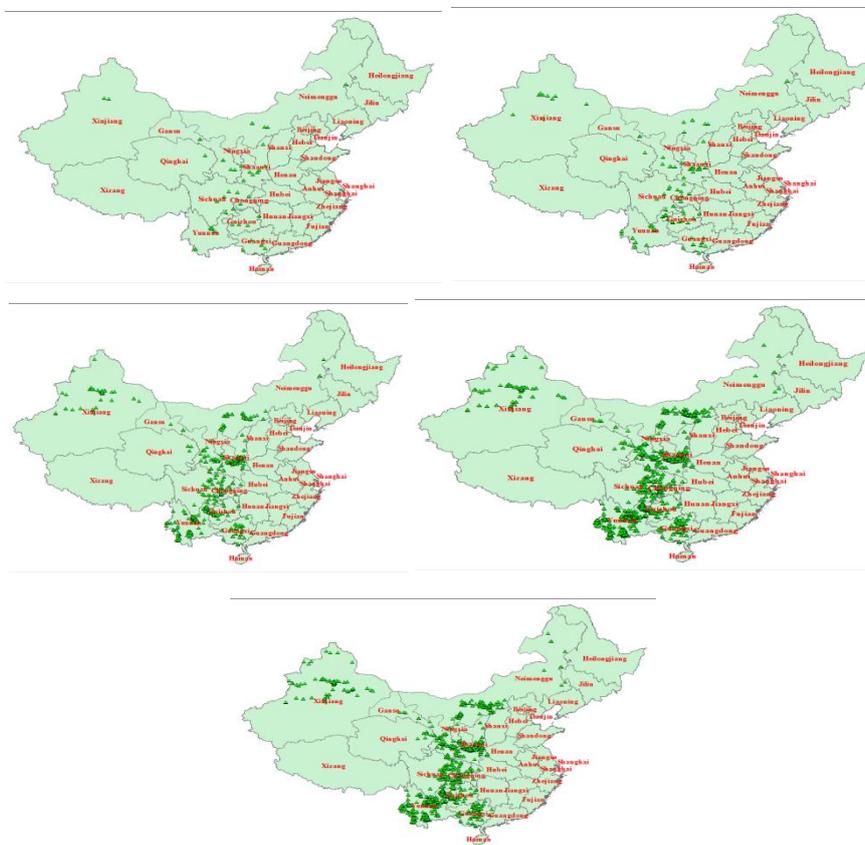


Table 24: The Number of the Protestant Churches in the Twelve Western Provinces, 1949 & 2004

Location	Church Numbers in 1949	Church Numbers in 2004	Growth Rate
Sichuan	8	93	1,063%
Chongqing	2	46	2,200%
Guizhou	4	118	2,850%
Neimenggu	6	206	3,333%
Yunnan	12	655	5,358%
Xizang	N/A	N/A	N/A
Gansu	8	168	2,000%
Guangxi	6	74	1,133%
Xinjiang	2	91	4,450%
Shaanxi	9	277	2,978%
Qinghai	1	13	1,200%
Ningxia	0	13	N/A

Table 25: The Protestants in the Twelve Western Provinces, 1949 & 2004

Location	Protestants in 1949	Protestants in 2004	Growth Rate
Sichuan	50,000	524,000	948%
Chongqing	N/A	304,990	N/A
Guizhou	10,000	400,000	3,900%
Neimeng	11,789	172,000	1,359%
Yunnan	112,886	1,179,000	944%
Tibet	N/A	N/A	N/A
Gansu	N/A	262,000	N/A
Guangxi	5,570	117,900	2,017%
Xinjiang	200	131,000	65,400%
Shaanxi	30,000	458,500	1,428%
Qinghai	500	39,300	7,760%
Ningxia	N/A	65500	N/A

In summarizing the patterns of Protestant development in the three regions of China, Tables 26 and 27 demonstrate several similarities between the thirty-one provincial capital cities and the thirty-one provinces. First, the east region had the highest number of Protestant churches either in 1949 (272) or in 2004 (6,535) compared to the other two regions. Second, the central region ranked the highest growth rate of the Protestant churches from 1949 to 2004, which was 158 times (39 vs. 6,220). Third, as for the information concerning the Protestant population, the central China had its largest number of the Protestant congregations in 2004 (10,350,000) and also had fastest growth rate of Protestants (40 times).

Table 26: The Regional Province Comparison of the Church Growth Rates

Church	Church number 1949	Church number 2004	Growth Rate
East	272	6,535	2,303%
Central	39	6,220	15,849%
West	58	1,754	2,924%

Table 27: The Regional Province Comparison of the Protestant Growth Rates

Protestants	Protestants in 1949	Protestants in 2004	Growth Rate
East	681,163	7,275,718	968%
Central	249,131	10,350,000	4,054%
West	220,945	3,654,190	1,554%

However, surprisingly enough, after comparing the different growth rates between the Protestant population and the Protestant churches in the thirty-one provinces of the three regions (see Table 29), the results are totally different from the thirty-one provincial capital cities. For instance, while the growth rate of Protestants were faster than that of Protestant churches in all thirty-one provincial capital cities indicated by Table 19, the evidences in the thirty-one provinces show the reversed patterns. In other words, at the level of the province, the supply of the church numbers was over the demand of the Protestants' members.

Table 29: The Regional Provincial Comparison of the Growth Rates between the Protestants and Churches

Region	Growth Rate of Church Number	Growth Rate of Protestant Population	Growth Rate Difference
East	2,303%	968%	1,335%
Central	15,849%	4,054%	11,795%
West	2,924%	1,554%	1,370%

Similarly, in terms of the density of Protestants, indicated by Table 18, each church on the average has accommodated more Protestants in the thirty-one provincial capital cities since 1949. By contrast, illustrated by Table 30 below, there have fewer Protestant members per church by average in the thirty-one provinces during the same time period.

Table 30: The Density of Protestants in the Regional Provinces, 1949 & 2004

Region	1949	2004
East	2,504	1,113
Central	6,388	1,664
West	3,809	2,083

The different growth rates between the thirty-one provinces and the thirty-one provincial capital cities illustrate significant milestones in understanding the Chinese Protestant market.

First, large cities like provincial capital cities⁹ were quite capable of accommodating and attracting more Protestants from other areas within a province. Second, government regulations have played a very important role in restricting new church construction in the large cities in consideration of social stability in the capital cities, but the government could play a lesser role in stopping the migration of Protestants to the larger cities. Thus, the expansion of churches could not catch up the dramatic growth of new urban Protestants. Third, the Protestant house churches in the large cities have absorbed and recruited the numerous Protestants who preferred not to attend overcrowded official churches in the large capital cities. Fourth, given the large gap of growth rates between the Protestants and the church numbers indicated by the column 4 of Table 27, it may explain that there were fewer government regulations about new church construction and there were fewer house churches in non-capital cities, particularly at the level of villages and townships.

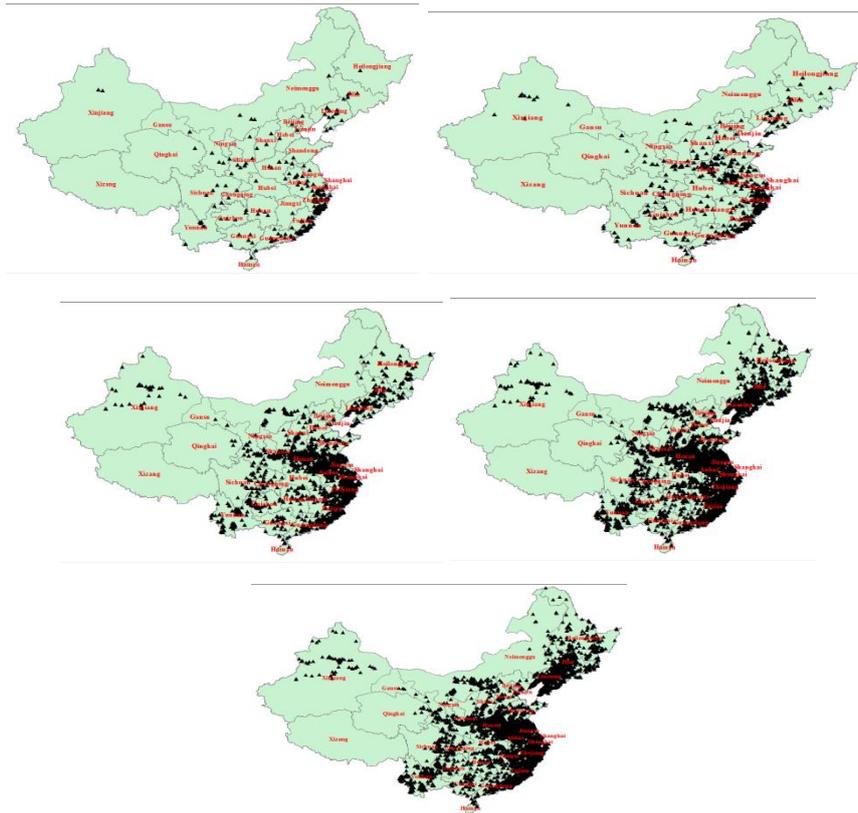
VII. The National Patterns of Demand and Supply of the Chinese

Protestant Market

Studying three selected cities in the three different regions, the thirty-one provisional capital cities divided by the three regions, and the thirty-one provinces in China since 1949, leads the study to a discussion of the national level of church supply and Protestants' demand in China. Map 10 below shows the explosive development of the Protestant churches during the five different years since 1949. Apparently, the development of Protestant churches reached the peak in 2004.

Map 10: The Protestant Church Sites in China in 1949 (Top Left), 1978 (Top Right), 1989 (Middle Left), 1999 (Middle Right), and 2004 (Bottom)

⁹ Different from the United States, all provincial capital cities in China are the largest cities in their located provinces.



If using the median and mean methods to calculate the average growth rate of the Protestant churches and congregations, Table 31 is helpful to verify the previous assessment that the growth of Protestant churches or the supply-side of market was 843% slower in median and 1,636% slower in mean than the growth of Protestant population or the demand-side of market. Meanwhile, one is able to figure out the national growth rates of Protestants (Table 32) and Protestant churches (Table 33).

Table 31: The Growth Rate of Churches and Protestants in the 31 Provincial Capital Cities

Growth Rate	Church Number	Protestant Population	Growth Rate Difference
Median	250%	1,093%	-843%
Mean	383%	2,018%	-1,636%

Table 32: National Growth Rate of Protestant Members (1949, 1982, 1997, 2004)

Year	Protestant Members	Changing Percentages
1949	700,000	
1982	3,000,000	329%
1997	11,882,000	296%
2004	21,000,000	77%

Source : F.T. Ying, "The Regional Development of Protestant Christianity in China: 1918, 1949 and 2004," *The China Review* 2 (2009): 83.

It needs to address that the number of Protestants (700,000) in 1949 indicated by Table 32 above is quite low when Ying's paper argues that the number should be approximately one million. However, prior to the establishment of People's Republic of China in 1949, the official statistic data indicated that "there were 700,000 Protestants in China."¹⁰ It is quite reasonable to suspect the possible underestimated number of national Protestants which may lead to the unreasonable low number of Protestant church and Protestants in each individual city and province in 1949. However, this study has no capability to challenge the official data released by the National Bureau of Statistics by providing much accurate and complete data.

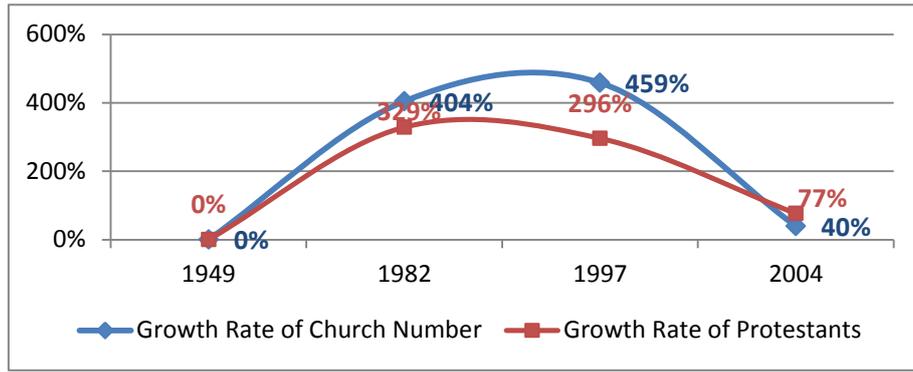
Table 33: The National Growth Rate of Protestant Churches (1949, 1982, 1997, 2004)

Year	Protestant Church Numbers	Changing Percentages
1949	369	
1982	1,861	404%
1997	10,394	459%
2004	14,509	40%

To compare Tables 32 and 33, Figure 4 presents a valuable picture that is significant in understanding the Chinese Protestant market since 1949. First, prior to 1982 the growth of Protestant churches was faster than the growth of Protestants (404% vs. 329%). Second, the growth rate of church numbers reached its peak in 1997 compared to the growth rate of Protestants (459% vs. 296%). Third, the year 2002 showed a significant data point, representing the first time that the growth rate of Protestants exceeded the growth rate of Protestant churches. Finally, up to the year 2004, the growth of supply-side (church) (40%) could not match the growth of demand-side of market (Protestants) (77%).

Figure 4: The Comparison on the National Growth Rates between the Protestant Members and Church Numbers

¹⁰ See The Central Committee of the Chinese Communist Party, "Zhonggong zhongyang guanyu tianzhujiao, jidujiao wenti de tishi" [Presentation on Catholics and Protestant by the Central Committee of the Chinese Communist Party, August 19, 1950], *Xinhua Web*, http://news.xinhuanet.com/ziliao/2004-12/13/content_2328881.htm (Assessed December 1, 2013).



In addition, it is momentous to compare the growth rate of Protestant churches to the expansion of other main religious sites in China. Table 34 clearly illustrates that the Protestant churches enjoyed an extremely high growth rate (38 folds) over the Buddhist temples (6.5 folds), the Taoist temples (4.2 times), and the Islamic Mosques (13.6 folds) from 1949 to 2004. Also, compared to the growth rate of Chinese population from 1949 to 2004, the growth rate of Chinese Protestants and churches were 19.7 folds more and 26.4 folds more, respectively demonstrated by Table 35.

Table 34: The Comparison between the Protestant Church and other Chinese Religious Sites

Year	1949	2004	Growth Rate
Protestant Church	369	14,509	3,832%
Buddhist Temple	2,357	16,248	589%
Taoist Temple	493	4,938	902%
Islamic Mosque	9,014	34,306	281%

Table 35: The Comparison on the Growth Rates between the Protestants and the Total Population

Subjects	Numbers in 1949	Numbers in 2004	Growth Rate
Population	541,670,000	1,299,880,000	140%
Protestants	700,000	21,000,000	2,900%
Church	369	14,509	3,832%

VI. Conclusion

Because both demand and supply are key components of religious market studies, it is vital to analyze the changing growth trend and patterns of the Protestants and Protestant churches in historical, comparative, statistical, and spatial perspectives. The study of three representative provincial capital cities, the thirty-one provincial capital cities, thirty-one provinces, and other census and religious references, leads scholars to the conclusion that the demand-side of the Protestant market developed much faster than that of the supply-side in the thirty-one

provincial capital cities. Consequently, the shortage of Protestant churches is becoming more evident in today's China in general and in provincial capital cities in particular.

Therefore, in an attempt to develop a healthy and balanced Protestant market in China, government regulations may play critical role in increasing the supply-side of the market through building more churches, reducing its restrictive control against religious freedom, and promoting religious pluralism. Indeed, the balance of demand and supply of religious market is one of the critical factors affecting social ecology and social harmony in China. Needless to say, the methods of spatial and statistical study on Chinese Protestant market would be applicable to the study of Chinese Catholicism, Buddhism, Islam, Taoism, and other folk religions.

References

- Amity Foundation. (1995). How many Christians are there in China? Questions and answers. *Amity News Services*.
- Amity Foundation. (1997). How to count the numbers of Christians in China? Questions and answers. *Amity News Services*.
- Amity Foundation. (2004). How many sheep are there in the Chinese flock? *Amity News Services*. Retrieved from <http://www.amitynewsservice.org>.
- Bankston III, Carl. (2003). Rationality, choice, and the religious economy: Individual and collective rationality in supply and demand. *Review of Religious Research* 45 (2):155-71.
- The Central Committee of the Chinese Communist Party. Zhonggong zhongyang guanyu tianzhujiao, jidujiao wenti de tishi [Presentation on Catholics and Protestant by the Central Committee of the Chinese Communist Party, August 19, 1950]. *Xinhua*. Retrieved from http://news.xinhuanet.com/ziliao/2004-12/13/content_2328881.htm.
- Chaves, Mark, & Laura Stephens. (2003). Church attendance in the United States. In Michele Dillion (ed.), *Handbook of the Sociology of Religion*, 85-95. New York: Cambridge University Press.
- Chaves, M., Peter J. Schraeder, & Mario Sprindys. (1994). State regulation of religion and Muslim religious vitality in the industrialized west. *Journal of Politics* 56 (4):1087-97.
- China Census Bureau. (2005). *The 2004 China's economic census data with GIS maps*. Beijing, China: All China Market Research Co., LTD.
- China Data Center at the University of Michigan. *Spatial Explorer of Religion*. Retrieved from <http://chinadataonline.org/religionexplorer/>.

- Editorial Committee. (2010). *Hangzhou minzu zhongjiao zhi* [Annals of ethnics and religions in Hangzhou]. Hangzhou, China: Hangzhou Press.
- Fiedler, Katrin. (2010). China's "Christianity fever" revisited: Towards a community-oriented reading of Christian conversions in China. *Journal of Current Chinese Affairs* (4): 71-109.
- Finke, Roger. (1997). The Illusion of shifting demand: Supply-side interpretations of American religious history. In Thomas Tweed (ed.), *Retelling U.S. Religious History*, 108-26. Berkeley, CA: University of California Press.
- Finke, R. & R. Stark. (1988). Religious economies and sacred canopies: Religious mobilization in American cities, 1906. *American Sociological Review* 53 (1):41-49.
- _____. (2000). Religious competition and commitment: An international assessment. In Steve Bruce (ed.), *Acts of faith: Explaining the human side of religion*, 218-50. Berkeley & Los Angeles, CA: University of California Press.
- _____. (2003). The Dynamic of religious economies. In Michele Dillion (ed.), *Handbook of the Sociology of Religion*, 96-109. New York: Cambridge University Press.
- _____. (2005). The Churching of America, 1776-2005. *Winners and losers in our religious economy* (ed.). New Brunswick, NJ: Rutgers University Press.
- Hadaway, C., & Marler, P. L. (2005). How many Americans attend worship each week? An alternative approach to measurement. *Journal for the Scientific Study of Religion* 44 (3):307-322.
- Hamberg, E. M., & Pettersson, T. (2002). Religious markets: Supply, demand, and rational choices. In T. G. Jelen (ed.), *Sacred markets, sacred canopies: Essays on religious markets and religious pluralism*, 155-178. Lanham, MD: Rowman & Littlefield.
- Hong, Z. (2011). The Protestant house church and its poverty of rights in China. *Annual Review of the Sociology of Religion: Volume 2: Religion and Politics* (2):160-176.
- _____. (2012a). In search of causes of the poverty of rights for Chinese Protestant house church. *Asian Profile* 40 (6):513-522.
- _____. (2012b). Protecting and striving for the rights to religious freedom: Case studies on the Protestant house churches in China. *Journal of Third World Studies* XXIX (1):249-261.
- Hong, Z., & L. Zeng. (2012) Spatial identification of the Christian church shortage: A case study in Hangzhou city. *American Review of China Studies* (Spring):17-36.

- Hong, Z., J. Yan, & L. Cao. (2014). Spatial and statistical perspectives on the Protestant church shortage in China: Case studies in Hangzhou, Zhengzhou, Hefei and Fuzhou. *Journal of Third World Studies XXIII* (1):30-39.
- Iannaccone, L. R. (1991). The Consequences of religious market structure: Adam Smith and the economics of religion. *Rationality and Society* 3 (2):156-177.
- Iannaccone, L. R., R. Finke, and R. Stark. (1997). Deregulating religion: The economics of church and state. *Economic Inquiry* 35 (2):350–364.
- Jelen, T. G. (2002). *Sacred Markets, Sacred Canopies: Essays on Religious Markets and Religious Pluralism* (ed.). Lanham, MD: Rowman & Littlefield.
- Klein, T., & C. Meyer. (2011). Beyond the market: Exploring the religious field in modern China. *Religion* 41 (4):529-534.
- Li, Xiangping. (2008). Supply and demand between China's religion and belief and its legal predicament. *Religious Studies Review* 2 (2):53-73.
- McBride, M. (2010). Religious market competition in a richer world. *Economics* 77 (305): 148-171.
- National Bureau of Statistic of China. (2001). *Communiqué of the national bureau of statistics of People's Republic of China on major figures of the 2010 population census[1] (No. 1)*. Retrieved from http://www.stats.gov.cn/english/newsandcomingevents/t20110428_402722244.htm.
- Opfinger, M. (2011). Religious market theory vs. secularization: The role of religious diversity revisited (No. 475). Diskussionspapiere der Wirtschaftswissenschaftlichen Fakultät, Universität Hannover.
- Paldam, M., & E. Gundlach. (2012). The Religious transition. A long-run perspective. *Public Choice* 3 (3):1-19.
- Research Project Team of the Institute of World Religious Studies in the Chinese Academy of Social Sciences. (2010). *The Survey report on China's Christians. (Zhongguo jidujiao ruhu wenjuan diaocha baogao)*. In Ze Jin & Yonghui Qiu (eds.), *Annual Report on China's Religions*, 190-212. Beijing, China: Shehui kexue wenxian chubanshe.
- Sherkat, D. E., & C. G. Ellison. (1999). Recent developments and current controversies in the sociology of religion. *Annual Review of Sociology* 25 (3):363-394.
- Sherkat, D. E., & J. Wilson. (1995). Preferences, constraints, and choices in religious markets: An examination of religious switching and apostasy. *Social Forces* 73 (3):993-1026.

- Stark, R. (1997). Bringing theory back in. In Lawrence Young (ed.). *Rational Choice Theory and Religion, Summary and Assessment*, 3–24. New York: Routledge.
- Stark, R., & L. R. Iannaccone. (1994). A Supply-side reinterpretation of the "secularization" of Europe. *Journal for the Scientific Study of Religion* 33 (3):230-252.
- Stark, R., & R. Finke. (2000). *Acts of faith: Explaining the human side of religion*. Berkeley, CA: University of California Press.
- Stark, R., & William S. Bainbridge. (1985). *The Future of religion: Secularization, revival and cult formation*. Berkley, CA: University of California Press.
- Yang, F. (2006). The Red, black, and gray markets of religion in China. *The Sociological Quarterly* 47 (1):93-122.
- _____. (2010). Religion in China under Communism: A shortage economy explanation. *Journal of Church and State* 52 (1):3-33.
- Ying, Fuk-tsang. (2009). The Regional development of Protestant Christianity in China: 1918, 1949 and 2004. *The China Review* 2 (2):63-97.
- Yue, Yuquan. (1998). *Harbin shi zhi: Zongjiao fangyan* [Annals of Harbin city: religions and dialect]. Harbin, Heilongjiang: Heilongjiang Renmin Chubanshe.

About the Authors:

Dr. Zhaohui Hong is professor of history and director of the Center for Global Studies at Purdue University Calumet. **Mr. Jiamin Yan** and **Ms. Lu Cao** are graduate assistants at Purdue University Calumet

Psychological Distancing Effect: A Theoretical Explanation for Understanding One's Perceptions and Evaluations of Organizational Phenomena

Sean Walker
University of Tennessee at Martin

ABSTRACT

The following paper discusses a theoretical model explaining the differences in perceptions of organizationally relevant phenomena. The current model proposes that individuals can intensify or weaken their perceptual intensity by the creation of a psychological barrier with the current context, the psychological distancing effect. Theoretical implications of such an effect are explained according to a myriad of relevant organizational and management constructs. Managerial implications and avenues for future research to assess the proposed model are discussed.

Keywords: Cognitive perspectives, decision making, and information processing

Introduction

There are many organizational and management oriented phenomenon that engender differentiated attitudinal and/or cognitive evaluations by organizational members. When management asks the perceived fairness of an organizational initiative and receives differing perspectives or viewpoints, management is commonly left trying to ascertain what causes such differing perspectives. Similarly, organizational executives can submit a memo to all organizational members, and although the same words reach all members, those same members can have different interpretations. The current conceptual model posits that the differentiation between individuals in their evaluation or judgment of organizational phenomena is a result of psychological distancing. Psychological distancing is the intentional or unintentional adoption of a psychological barrier that results in an individual perceiving a matter differently than others based on some internal need to do so. In other words, whether an individual means to or not, they will evaluate constructs differently based on a need to rationalize or explain something about that phenomenon that is currently unexplained. Typically the unexplained component will revolve around the individual not understanding why they feel differently about this evaluation than others or why they have a different evaluation now than previously.

Understanding this distinction in evaluation processes is integral since many relevant organizational phenomenon are built around the perceptions of organizational members (internal or external). Organizational decisions built around the willingness of their employees or their customers to buy-in or support said decisions are reliant on the ability of the organization to determine how the masses will interpret or perceive such acts. Sports organizations being proactive versus reactive in their punishment of one of their players is commonly built around

the interpretation of how well an action or lack thereof would be received by those hearing of said action or inaction. In other words, organizational executives in sports associations like the NFL will proactively punish players while an investigation is being conducted whereas others will reactively punish once the player has been “found guilty”. Under the current example, this action by the NFL team is an example of psychological distancing. They are distancing themselves from the player, or not, based on whether or not they perceive relevant organizational members (e.g. media and/or fans) will be favorable or unfavorable in their evaluation of such action. To further illustrate this phenomenon, the lack of action by the NFL in the Ray Rice situation has led the NFL commission Roger Goodell to be much more proactive in punishing potential offenders as it is integral that the NFL does not come off as supporting the commission of these crimes. As such, because the organization has received blowback from previous decisions or handling of said matters, the NFL has psychologically distanced themselves from any individuals accused of committing similar crimes.

Theoretical Model

The prevalence of psychological distancing can be found throughout the organizational behavior and management literatures. The following section will explain the profound impact within the pertinent literatures that may be explained by psychological distancing, including but not limited to, perceptions of the employment contract, satisfaction, rewards and punishments, organizational justice, ethical evaluations, organizational competitors, in-group versus out-group membership and groupwork.

Cessation of the employment contract

Psychological distancing is likely to explain differing views on the utilization of terminations and downsizing within an organization. For example, Author (2015) found that the utilization of inclusive versus exclusive terminology led to differing perceptions of one’s satisfaction levels following the cessation of the employment relationship. Specifically, those individuals exposed to inclusive terminology had significantly higher satisfaction levels of termination interviews but it was those individuals exposed to exclusive terminology that had higher levels of satisfaction following a downsizing initiative. Psychological distancing can explain this because it is likely that a termination is rationalized as being a personal attack on the individual’s performance with the organization whereas a mass layoff represented by downsizing can be explained as a business decision. Because of this, the individuals create a psychological barrier when it comes to the type of terminology they expect from management.

Another example of different perceptions of the cessation of the employment contract is gleaned from the self- versus employer-reliance perspectives. Since the mid-1900’s multiple scholars (e.g., Ellig, 1998; Kissler, 1994; Lucero & Allen, 1994) have postulated a shift from a dependent or employer-reliant relationship, in which employees rely on employers for career success to a more self-reliant or independence based relationship (McKinley, Mone, & Barker, 1998), in which job mobility counteracts the traditional dependence individuals have had on employers for obtaining vital resources. Among several possible causes for this shift include employees’ increased job mobility and organizations’ increased use of downsizing and restructuring (McKinley et al., 1998; Rotondo, 1999) which place greater demand on employees to take

advantage of available methods for improving existing skills and developing new ones (Ellig, 1998). Of particular interest to psychological distancing, Kissler (1994) suggested that the “new employee contract” acknowledges that long-term employment is unlikely, and that multiple employment relationships will likely be created and disbanded over the course of a typical employee’s career. Similarly, Hirsch (1986) implied that the responsibility for career viability will now fall upon the employee. McKinley et al. (1998) suggested that if the ideology of self-reliance becomes institutionalized it will lead to fewer ethical qualms for top managers to deploy downsizing under competitive conditions. In other words, the loyalty or dependence that employees had on employers and vice versa in the mid 1900’s is now being amended to acknowledge a perspective of independence or job-hopping as a result of a psychological barrier adopted by organizational members that evaluate the employee-employer relationship.

Satisfaction

On a similar stream of thought, psychological distancing is also likely to influence perceptions of satisfaction with all organizational initiatives. Job satisfaction is an individual level attitudinal variable (Saari & Judge, 2004; Spector, 1997) and as such is as volatile as other emotions. Furthermore, to the extent that emotions are at play, it is highly likely that they will influence and be influenced by the individual. The Affect Infusion Model (Forgas, 1995) and discussions following (Forgas & George, 2001) assert that affect is able to influence an individual due to the degree of environmental volatility and/or complexity. Specifically, the authors suggest that as the complexity of the tasks increase, the amount of effort applied by the individual to make a decision will increase. This will result in the decision being more susceptible to being influenced by affect. On the other hand, as the simplicity of the task increases, the less effort required to make a decision thus resulting in little to no influence from affect. On a similar note, Baron (2008) discussed the influence of affect on the cognitive process via the utilization of heuristic cues. Specifically, Baron (2008) stated that the affect-as-information mechanism (Clore, Schwarz, & Conway, 1994; Martin & Stoner, 1996) that when an individual experiences negative (positive) affect, that individual is likely to exude unfavorable (favorable) judgments. Furthermore, research has shown that one’s affect level is able to activate different types of responses to resolve simple and/or complex situations the individual has been presented with (Frijda, 1986; Oatley & Jenkins, 1992; Oatley, Keltner, & Jenkins, 2006; Schwarz, 1990). In other words, the presence of positive affect can cause an individual to process information differently than if negative affect was present. This logic from this stream of research is highly important to psychological distancing effect because it suggests an amendment of evaluations based on the presence of an environmental cue that might trigger the development of a psychological barrier that causes the individual to process the information differently (i.e. have a different evaluation).

As discussed in the previous section, psychological distancing can amend the type of terminology desired by organizational members when they are subjected to the cessation of the employment relationship (e.g. Author, 2014; Author 2015). It is also likely that the utilization of a psychological barrier or enhanced perception of distance from a situation can decrease the intensity of the felt emotion. On the other hand, the lack of a barrier present or an enhanced perception of proximity to a situation can increase the intensity of the felt emotion. In other words, one’s closeness, or psychological proximity, with the situation impacts perceptions of

satisfaction. This is likely to cause organizational members to be more satisfied in some situations yet less satisfied in others. For example, under the current logic, psychological distancing would posit that when evaluating the treatment of a friend versus a stranger, the individual will have much more intense felt emotions when evaluating the treatment of their friend. Under the current context, this would suggest that an individual evaluating the termination of a friend will be much less satisfied with the situation than if the individual was evaluating the termination of a stranger. Furthermore, the justifications for the said decisions will likely be amended as well because of the psychological distancing. For example, if a friend is terminated it is likely that the organization has “it out” for the friend or is being unjust or unfair in their termination whereas if a stranger is terminated, it is likely to be explained as a business decision or a reflection of poor performance on the part of the individual.

Rewards and punishments

Continuing with the logic of felt emotions discussed in the previous section, it is also likely that psychological distancing will influence perceptions of rewards and punishments distributed. Since the evaluation of both rewards and punishments are contingent on felt emotions, the logic from the previous sections apply to rewards and punishments as well. It is likely that the closer one is to a situation, the harsher or more intensely they will feel the outcomes received are harsher. Essentially, the perception of the punishment or reward will be more intense or extreme. In other words, the more proximal (i.e. lack of a psychological barrier) one is to an evaluation of a punishment or reward, the stronger the individual will feel the emotion of the punishment or reward received. On the other hand, the further one is from a situation, the less intense the felt emotion or less severe the experience of the evaluation of the punishment or reward. Essentially, the perception of the punishment or reward will be less intense or severe. In other words, the more distal (i.e. the presence of a psychological barrier) one is to an evaluation of a punishment or reward, the weaker the individual will feel the emotion of the punishment or reward received. The impact of said effects can be measured through both behavioral modification and extent that the individual felt the emotion. It is likely that the individual experiencing satisfaction resulting from the lack of a punishment or the presence of a reward will exhibit more organizational citizenship behaviors as a result of this satisfaction. In regard to felt emotions, one would expect the same individual to report higher levels of satisfaction, perceptions of being treated justly, higher levels of happiness and lower levels of regret and sorrow following the organizational outcome. The variables that would increase one’s proximity could be the evaluation of a friend versus stranger; when an outcome is desirable (i.e. reward outweighs risk); high levels of trust in the individual making the punishment or reward situation; an increased level of identifiability (i.e. management can identify one’s performance, whether good or bad); to name a few.

It should also be noted that one’s expectation level may also serve as the implementation of a psychological barrier. If one is expecting a severe punishment and the individual receives a less severe punishment the expected effect will also be dependent on whether the individual receiving the unanticipated punishment is the self, a friend, or a stranger. Put differently, psychological distancing would expect an individual to be much more satisfied by a less severe punishment when the self receives it and would expect a perception of a stranger to engender the lowest level of satisfaction. On the other hand, if the individual receives a more significantly harsher punishment expected, psychological distancing postulates that the perception of the stranger

would engender the highest satisfaction level whereas the perception of the self would have the lowest levels of satisfaction. In regard to rewards, psychological distancing would propose that satisfaction levels of a much less than expected reward will have the highest values when evaluating a stranger whereas the lowest values will be when evaluating the self. On the other hand, when the reward is significantly greater than expected, psychological distancing suggests that the higher satisfaction levels will be a result of the evaluation of the self whereas the evaluation of a stranger will engender the lowest level of satisfaction.

Another example of a psychological distance impacting perceptions of punishments and rewards can be built around the extent that an individual feels empathy for the position or situation another is currently facing. Imagine the following scenario. Two employees walk in to work late. One is a single, mother while the other is a young, single, male. Without asking for an explanation, the manager immediately has a visceral reaction of empathy for the woman and contempt or displeasure with the male. Why is this, the manager has likely drawn the conclusion that the male chose to be late (i.e. wanted to sleep in) or was irresponsible (i.e. stayed out drinking) whereas the woman likely was forced to (i.e. child was sick or babysitter was late). According to psychological distancing, the extent a manager derives these types of conclusions suggests the psychological proximity they draw with both employees. In other words, it is likely that the manager has more empathy for the woman and gives a benefit of the doubt because traits of a single, mother are reflective of trait subsumed within the psychological barrier. On the other hand, the lack of empathy and displeasure for the male because those traits are outside of the psychological barrier that individual has built. Put differently, the manager is more likely to connect with and/or understand the plight that the woman is going through and thus tries to respond with more leniency.

Organizational Justice

Stemming from our previous discussion, it is also posited that psychological distancing will impact perceptions of organizational justice. In fact, Author (2015) found that perceptions of organizational justice could be primed through interpersonal distance. Of importance here, and in direct relation to psychological distancing, is the notion that participants perceptions of organizational justice were amended nonconsciously through the priming of interpersonal distance. Interpersonal distance was primed via plotting points on a Cartesian plane (as done in Williams & Bargh, 2008). Furthermore, and in support of psychological distancing, Author (2015) found perceptions of just versus unjust organizational treatment was contingent on the perception of the self versus others and others was coded as either a member of an in-group (i.e. greater psychological proximity) or out-group (i.e. greater psychological distance). As supported in Author (2015), psychological distancing would suggest that psychological proximity would engender greater perceptions of unjustness when witnessing an unjust event in comparison to individuals that are psychologically distal. On the other hand, individuals reflecting a psychological proximity are more likely to engender greater perceptions of justness when witnessing a just event. Furthermore, the extent in which we create an additional psychological barrier (evaluating the self versus others) will amend this expectation such that the previous findings would be expected from the view of the self. On the other hand, when evaluating the same situation of another, as opposed to the self, psychological distancing would suggest the

opposite effect. In other words, perceptions of just events will be construed as less just whereas perceptions of unjust events will be considered less unjust.

Perceptions of ethical evaluations

Another organizational construct influenced by psychological distancing is one's perception of ethical evaluations. There is currently a small, but growing, body of research that measures the influence of cognitive, especially nonconscious, processes on an individual's interpretation of the ethical and unethical situations (e.g. Bailey, 2013). In fact, this stream of literature focuses around the contrast effect (see Higgins & Lurie, 1983; Sherman, Ahlm, and Berman, 1978 for a review), or the tendency for individuals primed with unethical perceptions to perceive subsequent behaviors as being more ethical whereas individuals primed with ethical perceptions tend to perceive subsequent behaviors as being more unethical. These findings suggest that priming an individual with one valence of ethical evaluations causes an amendment in the standard one compares all subsequent ethical evaluations to be moved in a similar direction. In other words, if an individual is primed with unethical behaviors through the exposure to frequent infractions at work, subsequent behaviors previously deemed unethical are more likely to be subsumed as acting ethically. Put differently, exposure to frequent unethical behaviors will lead to an increase in the threshold required to engender a violation of one's new ethical values (i.e. the infraction will have to be more severe). On the other hand, priming an individual with ethical behaviors through the frequent exposure to ethical behaviors in an organization, subsequent behaviors that previously would have been deemed ethical will now be considered unethical. Put differently, the bar one uses to evaluate whether something is ethical will have been shifted such that the severity of the infraction will be much less and engender the same result of a violation of the ethical perception. In terms of psychological distancing, the exposure to prior events of an ethical or unethical nature will create a psychological distancing effect that will amend the perception of ethical dilemmas.

Perceptions of Organizational Competitors

Psychological distancing can also lend its functionality to organizational theory as well. Research supporting this link can be found by Porac and colleagues (e.g. Porac & Thomas, 1990; Porac, Thomas, & Baden-Fuller, 1989; Porac, Thomas, Wilson, Paton, & Kanfer, 1995) Porac et. al., (1989) found that organizational executives define the organizations competitors do so as a result of the adoption and amendment of mental models. In the words of the proposed psychological distancing effect, the organizational executives will define their competition more narrowly or broadly dependent on the psychological distance they perceive between themselves and their competitors. In other words, the closer they see themselves to being similar with a competitor, the more likely they will be considered as a competitor and thus the organization will focus on their behaviors in terms of how to respond. On the other hand, the more dissimilar they see themselves with a competitor (i.e. psychologically distal), the less likely they will be considered as a competitor and thus the organization will choose to ignore the other companies behaviors. Porac et. al., (1989) found that the Scottish Knitwear firms only considered other Scottish knitwear firms as being direct competitors thus they had a narrowly defined list of competitors (i.e. psychologically distal). In other words, the Scottish knitwear firms had more psychological barriers in place as they were used to disregard other potential competitors. Had

they found a broader list of competitors (e.g. Egyptian cotton firms as well) then this would have been more psychologically proximal (i.e. they see themselves similar with more firms). In other words, the Scottish knitwear firms would have fewer psychological barriers in place thus resulting in a requirement of the organization to focus on more organizations as they are defined as competitors. This is particularly important for organizations because much of an organizations ability to succeed can be derived by its ability to respond to competitors. For example, if McDonald's narrowly defines its competitors, it may only pay attention to what other fast-food burger restaurants like Wendy's and Burger King. This means they could ignore the competitive actions of companies like Taco Bell which has started carving into McDonald's breakfast revenues since it launched its breakfast menu. Conversely, McDonald's could define its competitors so broadly that it is unable to keep up with and monitor all of the potential competitive actions. For example, if McDonald's defines a competitor as an organization that competes for the consumer's dollar, then companies like Harley Davidson could be considered competitors. After all, if an individual purchases a new Harley, it is likely they will have less money to spend at McDonald's. Because of this, McDonald's corporate, along with each individual franchisee, must determine who they want to focus on. The permeable boundary they develop to ignore behaviors of organizations outside of that perimeter are those organizations being psychologically distanced from the company.

In-group versus Out-group membership

It is likely that psychological distancing would also impact who is considered an in-group versus out-group member. There is a large literature focusing on beliefs about specific groups or social categories (e.g. Banaji & Prentice, 1994; Hewstone, Rubin, & Willis, 2002). Social categorization is a "process of bringing together social objects or events in groups which are equivalent with regard to an individual's actions, intentions and system of beliefs (Tajfel, 1981: 254)". Research and theory focusing on social identity theory provides a useful lens. Social identity is the "part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership" (Tajfel, 1981, p. 255). In other words, the extent that one identifies themselves with a group, especially one deemed prestigious and desirable, there is a greater prevalence of intergroup biases. This suggests that as individuals begin to identify entities as belonging to an in-group, they begin to have a growing level of support for other individuals they identify as being in-group members (Ashforth & Mael, 1989). In relation to psychological distancing, the more proximal an individual is considered, the more of an in-group member that individual will be considered as. The more distal an individual is considered, the more of an out-group member that individual will be considered as. In other words, the more similar another individual is to the self, the more favorable of view the self will have of that individual. Specifically, that individual will be subsumed within the permeable psychological boundary created by the psychological distancing effect. An important note here is the permeable nature of this boundary and subjective nature of social identity. At any point in time, the individual making the evaluation could construe an out-group member as more of an in-group or an in-group member as more of an out-group member thus moving them within or outside of the psychological barrier. In other words, one's position inside the psychological barrier is a dynamic and potentially temporary position that could change at any time that it benefits the individual making the evaluation.

The source of these amenable views can be found within the social identity literature. For example, Social identity research has also documented a host of intergroup biases. Intergroup bias is the “systematic tendency to evaluate one’s own membership group or its members more favorably than a non-membership group or its members” (Hewstone, Rubin, & Willis, 2002, p. 576). According to Hewstone and Cairns (2001), these biases can be either explicit or implicit. Explicit conflict (e.g. prejudice such as stereotyping) is derived from and authenticated by rules or norms, whereas implicit conflict (e.g. ethnic genocide such as the Holocaust) refers to conflict absent explicit (i.e. public) adoption and implementation by the individuals exhibiting the bias. A large literature measuring intergroup bias has shown influence from a wide variety of variables including: one’s identity to a group (Ashforth & Mael, 1989; Rand, Pfeiffer, Dreber, Sheketoff, Wernerfelt, & Benkler, 2009), perceptual variables (Bettencourt, Charlton, Dorr, & Hume, 2001), favorability of the in-group (Brewer, 1979; 1988), age (Abrams, Rutland, Cameron, & Marques, 2003), and personality (Downing & Monaco, 1986; Otten & Wentura, 2001). Although this list is by no means exhaustive, it provides an initial understanding for the innumerable factors that influence one’s proclivity for liking or supporting a specific group or social category and subsequent biases toward that group or category.

In relation to psychological distancing, one’s level of intergroup bias will be more intense or severe the less similar the individual considers themselves with the person the comparison is being made about. In other words, the more similar an employee is considered to a manager making a decision, the less bias that employee can expect from the manager on all relevant decision making. On the other hand, the less similar or more dissimilar an employee is considered to a manager making a decision, the more bias that employee can expect from the manager on all relevant decision making.

Evaluations of Groups

Based on the current logic, psychological distancing is also likely to have a profound impact on evaluations of groups through their impact of one’s beliefs about groups. Group beliefs refer to an individual’s positive versus negative feelings about small work groups. The logic for psychological distancing can be found in the postulations of Karau and Elsaid (2009). Specifically the authors noted that perceptions of groups may vary widely across individuals. This diverse base of perceptions is likely most contingent upon one’s past experiences with groups. In other words, the extent that an individual has had positive or negative experiences working in a group, they will likely have a similarly valenced expectation regarding subsequent group tasks. In line with psychological distancing, it would be expected that an individual will develop a psychological barrier that decreases the likelihood that the individual will pay attention to any information that would be counter to the predisposed expectation. Put differently, if an individual has positive past experiences, they will ignore or discount or rationalize poor current performance on group tasks because of the adoption of a psychological barrier that seeks to fulfill the positive expectation for working in a group. On the other hand, if an individual has negative past experience, they will ignore or rationalize positive performance on groups tasks because the psychological barrier seeks to fulfill the negative expectation of groupwork. This process is similar to the behavioral modification process of self-fulfilling prophecy (e.g. Merton,

1948) but the difference is that psychological distancing is a cognitive, not behavioral, process of expectation reinforcement.

This is meaningful for organizations because, to the extent employees observe behaviors such as early departure, it may lead to the automatic adoption of negative stereotypes for any similar individuals (i.e. it reinforces the predisposed belief and decreases the permeability of the psychological barrier). It is also meaningful for organizations because group beliefs may affect a range of perceptions, interactions, and performance level metrics (Karau & Elsaid, 2009). Karau and Elsaid (2009) suggest that groups beliefs are likely to be important because positive beliefs about groups may enhance motivation and facilitate group functioning and performance through processes such as strengthening cohesion (Mullen & Copper, 1995) or increasing the value and meaningfulness attached to group tasks (Karau & Williams, 1993). Furthermore, the fulfillment of those psychological needs may lead individuals to be more engaged in the group (Kahn, 1990), leading them to invest more of their resources (e.g. time, money, effort) and increasing the chances of the group performing well. On the other hand, negative beliefs about groups may reduce motivation and impair group functioning and performance through mechanisms such as frequent absenteeism (Iverson & Deery, 2001), allocation of effort to alternate tasks (Ashkanasy, 2003), or disengagement (Kahn, 1990).

Discussion

The central tenet behind psychological distancing is the cognitive adoption of a permeable barrier that allows for an understanding of differential evaluations within and across individuals. In other words, psychological distancing attempts to explain the volatility or fluctuating nature of an individual's evaluation process.

Throughout the preceding discussion, it was attempted to discuss the profound impact of psychological distancing on a myriad of organizationally relevant phenomena through an in-depth analysis of each. It is important to note that the factors listed are by no means an exhaustive list of organizational constructs impacted by psychological distancing. Instead, they are the first step in explaining this new theoretical model in relation to understanding the different perceptions individuals have within an organization. Future discussions of psychological distancing should assess other factors that may be influenced such as managerial commitment, power dependency relationships, perceptions of trust, and evaluations of person-organization fit.

There are two main research considerations that must be addressed by research who seek to apply psychological distancing in an integrative process. First, the framework posited here cannot be measured through simple, self-survey administration. This is due to the lack of intent and/or awareness on the part of the person making the evaluation. Because of this, a methodological tool such as the Implicit Attitude Test (see Greenwald, McGhee, & Schwartz, 1998) will be needed to measure such an effect. Secondly, because the proposed model is looking at adoption and implementation of a psychological barrier over time, and its subsequent impact on future evaluations, it is likely that cross-sectional studies will not be able to adequately measure the adoption of a psychological barrier. This would suggest that researchers will need to

measure pertinent perceptions by the individual on multiple dimensions of the relevant variable over time as the perception is amended (i.e. reinforced by past experiences). For example, when assessing if an individual has a preference about working in groups, researchers will need to measure perceptions about working with groups and working with individuals. Furthermore, researchers will need to determine a baseline value and future values to see if perceptions are being amended, thus reflecting a development/implementation/amendment of a psychological barrier.

Conclusion

Existing literature does not adequately address the distinction in perceptions across and within individuals. Some ideas for this differentiation of perceptions have been briefly discussed in this paper, but this barely scratches the surface of the requisite attention this subject deserves. This article proposes a theoretical framework that helps individuals understand why they may have differing views within a situation and why they may have differing views of a similar situation in comparison to others who also view that situation. The underlying clue to this distinction is the development and implementation of a psychological barrier that cognitively distances an individual from some situations while bringing an individual closer (cognitively) with others.

The current paper proposes that psychological distancing impacts perceptions of a myriad of organizationally relevant phenomena: cessation of the employment contract, satisfaction, rewards and punishments, organizational justice, ethical evaluations, organizational competitors, in-group versus out-group membership and groupwork. Individuals will likely experience different perceptions of all of these events based on the presence or lack thereof a psychological barrier that may impede the ability of information to be processed by the individual. Future empirical examination is required to test this theoretical framework and justify the proposed relationships.

References

- Abrams, D., Rutland, A., Cameron, L., & Marques, J.M. (2003). The development of subjective group dynamics: When in-group bias gets specific. *British journal of Developmental Psychology*, *21*, 155-176.
- Ashforth, B.E., & Mael, F. (1989). Social Identity Theory and the Organization. *Academy of Management Review*, *14*, 20-39.
- Ashkanasy, N. M. (2003). The human organization of time: Temporal realities and experience. *Personnel Psychology*, *56*, 775-778.
- Bailey, J.J. (2013). Judging managerial actions as ethical or unethical: Decision bias and domain relevant experience. *International Journal of Business and Social Research*, *3*, 1-17.
- Banaji, M. R., & Prentice, D. A. (1994). The self in social contexts. *Annual Review of Psychology*, *45*, 297-332.

- Baron, R.A. (2008). The role of affect in the entrepreneurial process. *Academy of Management Review*, 33, 328-340.
- Bettencourt, B.A., Charlton, K., Dorr, N., & Hume, D.L. (2001). Status differences and in-group bias: A meta-analytic examination of the effects of status stability, status legitimacy, and group permeability. *Psychological Bulletin*, 127, 520-542.
- Brewer, M.B. (1979). In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin*, 86, 307-324.
- Brewer, M.B. (1988). The psychology of prejudice: Ingroup love or outgroup hate? *Journal of Social Issues*, 55, 429-444.
- Clore, G.L., Schwarz, N., & Conway, M. (1994). Affective causes and consequences of social information processing. *Handbook of Social Cognition*, 324-404.
- Downing, L.L., & Monaco, N.R. (1986). In-group/Out-group bias as a function of differential contact and authoritarian personality. *The Journal of Social Psychology*, 126, 445-452.
- Ellig, B. R. (1998). Employment and employability: Foundation of the new social contract. *Human Resource Management*, 37, 173-175.
- Forgas, J.P. (1995). Mood and judgment: The Affect Infusion Model. *Psychological Bulletin*, 117, 39-66.
- Forgas, J.P., & George, J.M. (2001). Affective influences on judgments and behavior in organizations: An information processing perspective. *Organizational Behavior and Human Decision Processes*, 86, 3-34.
- Frijda, N.H. (1986) *The emotions*. Cambridge: Cambridge University Press.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. K. L. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74, 1464-1480.
- Hewstone, M. & Cairns, E. (2001). Social psychology and intergroup conflict. In D. Chirot & M. E. P. Seligman (Eds.) *Ethnopolitical warfare: Causes, consequences, and possible solutions* (pp. 319-342). Washington DC: US American Psychological Association.
- Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup Bias. *Annual Review of Psychology*, 53, 575-604.
- Higgins, E., & Lurie, L. (1983). Context, categorization, and recall: The. *Cognitive Psychology*, 15, 525-547.
- Iverson, R.D., & Deery, S.J. (2001). Understanding the “personological” basis of employee withdrawal: The influence of affective disposition on employee tardiness, early departure, and absenteeism. *Journal of Applied Psychology*, 86, 856-866.
- Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at work. *The Academy of Management Journal*, 33, 692-724.

- Karau, S. J., & Williams, K. D. (1993). Social loafing: A meta-analytic review and theoretical integration. *Journal of Personality and Social Psychology*, 65, 681-706.
- Kissler, G. D. (1994). The new employment contract. *Human Resource Management*, 33, 335-352.
- Lucero, M. A. & Allen, R. E. (1994). Employee benefits: A growing source of psychological contract violations. *Human Resource Management*, 33, 425-446.
- Martin, L.L., & Stoner, P. (1996). Mood as input: What we think about how we feel determines how we think. In Martin, L.L. & Tesser, A (Eds.), *Striving and feeling: Iterations among goals, affect, and self-regulation*. Mahwah, NJ: Lawrence Erlbaum Associates.
- McKinley, W., Mone, M. A., & Barker, V. L. (1998). Some ideological foundations of organizational downsizing. *Journal of Management Inquiry*, 7, 198-212.
- Merton, R.K. (1948). The self-fulfilling prophecy. *The Antioch Review*, 8, 193-210.
- Mullen, B., & Copper, C. (1995). The relation between group cohesiveness and performance: An integration. *ARI Research Note*, 1-64.
- Oatley, K., & Jenkins, J.M. (1992). Human emotions: Function and dysfunction. *Annual Review of Psychology*, 43, 55-85.
- Oatley, K., Keltner, D., & Jenkins, J.M. (2006). *Understanding emotions*. Oxford: Blackwell.
- Otten, S., & Wentura, D. (2001). Self-anchoring and in-group favoritism: An individual profiles analysis. *Journal of Experimental Social Psychology*, 37, 525-532.
- Porac, J.F. & Thomas, H. (1990). Taxonomic mental models in competitor definition. *Academy of Management Review*, 15, 224-240.
- Porac, J.F., Thomas, H., & Baden-Fuller, C. (1989). Competitive groups as cognitive communities: The case of Scottish knitwear manufacturers. *Journal of Management Studies*, 26, 397-416.
- Porac, J.F., Thomas, H., Wilson, F., Paton, D., Kanfer, A. (1995). Rivalry and the industry model of Scottish knitwear producers. *Administrative Science Quarterly*, 40, 203-227.
- Rotondo, D. (1999). Individual-difference variables and career-related coping. *The Journal of Social Psychology*, 139, 458-471.
- Rand, D.G., Pfeiffer, T., Dreber, A., Sheketoff, R.W., Wernerfelt, N.C., & Benkler, Y. (2009). Dynamic Remodeling of in-group bias during the 2008 presidential election. *Proceedings of the National Academy of Science*.
- Saari, L.M., & Judge, T. A. (2004). Employee attitudes and job satisfaction. *Human Resource Management*, 43, 395-407
- Schwarz, N. (1990). Feelings as information: Informational and motivational functions of affective states. In E.T. Higgins & R. Sorrentino (Eds.), *Handbook of motivation and cognition: Foundations of social behaviour*, 2, 527-561. New York: Guilford Press.

- Sherman, S., Ahlm, K., Berman, L., & Lynn, S. (1978). Contrast effects and their relationship to subsequent behavior. *Journal of Experimental Social Psychology, 14*, 340-350.
- Spector, P.E. (1997). *Job Satisfaction*. Thousand Oaks, California: SAGE Publications.
- Tajfel, H. (1981). *Human groups and social categories: Studies in social psychology*. Cambridge University Press: Cambridge.
- Walker, S. (2014). The Nonconscious Influence of Managerial Narrative on Perceptions of Job Satisfaction. *Journal of Marketing Perspectives, 1*, 72-84.
- Walker, S. (2014). Priming power to influence perceptions of ethics. *Journal of Business and Economic Perspectives, 100-110*.
- Walker, S. (2015). The nonconscious influence of organizational perceptions through interpersonal distance: An experimental study of self versus others. *Journal of Marketing Perspectives, 1*, 6-21.
- Walker, S. (2015). Psychological disconnect: The impact of managerial narrative on perceptions of the cessation of the employee-employer relationship. *Under review*
- Williams, L., & Bargh, J. (2008). Keeping One's Distance. *Psychological Science, 19*, 302-313.

Critical Thinking Student Preferred Learning Aids: An Experimental Study
Article One of a Trilogy

T. Christine Gordon
Saint Leo University

Veronika Ospina-Kammerer
Saint Leo University

ABSTRACT

Problem based learning (PBL) is relatively new in the realm of learning, use of learning aids and assessment. PBL requires product design/course, paper completion, and research/citations in support of the student statements and specific parameters of the paper. Teaching and learning theories (inductive and deductive) and critical thinking are the benchmarks in determining the success of teaching techniques in a course. The deductive method includes a preset assessment. The "Table Of Contents" structures student learning. A student's critical thinking becomes self-directed, self-disciplined, self-monitored and self-corrective. Textbooks and lectures are often barriers to learning for many students. A study, the first of three, was designed to test for (no) preferences of student course aids with respect to critical thinking, learning and assessment. The aids included the text, lectures, subject handouts, specific end of course paper table of contents, and sample (rubric) paper. A survey questionnaire was administered to cohort groups of business, and health care students. A sample of 120 senior students were surveyed and 84 students responded. The course delivery format varied to include online, traditional on ground, blended and/or Video Teleconferencing Technology (VTT).

Chi Square Goodness of Fit Testing suggested that a given/provided Table of Contents for the major course paper, as an assessment, was most preferred by the responders. The five course aids (in student preferred rank order) are:

- 1. Preset/given paper table of contents*
- 2. Rubric/sample report*
- 3. Subtopic lectures*
- 4. Student sharing/group work*
- 5. Textbook*

There was a statistically significant difference in student learning aid preferences at alpha a priori < .05 percent. The responders (96%) ranked the textbook last. The text was considered an outlier. All responders reported that course aids (used in the cohort courses) were also helpful in their "follow on" courses.

Introduction

This paper, the first in a trilogy, presents an overview of student preferences in course aids for Problem Based Learning (PBL) assessments. It looks at a variety of student aids and also references a variety of assessment instruments. The paper focuses on critical thinking and student course papers. Problem based learning (PBL) is relatively new in the realm of learning, use of learning aids, and assessments (Thomas, 2003). PBL supports critical thinking in that it requires product design/course paper completion, research/citations in support of the student statements, and specific parameters of the paper (the minimum of sub topics to be covered). PBL requires that someone, other than the learner, is responsible for both the learning situations and management of the assessments. Teaching and learning are directly tied to educational theories. These theories are benchmarks in determining both the success of teaching techniques and proof of learning.

The survey findings, as a time series of cohort groups, are also applicable to the following learning theories:

Grow's (Grow, 1991) theory of Self Directed Development is closely matched to actual/existing situations. The student must become decisive, resourceful, investigative, critical thinkers based on assigned objectives in the course, self-directed and independent learners. As students gain the skills needed for self direction, the teacher becomes less directive. (1991, pp. 124-149).

Curriculum Design theory: a similar progression towards self directed learning can be applied to a course curriculum.

Approaches

The learning theories are interrelated to two teaching and learning methods. The methods are inductive and deductive. In inductive the teacher exposes the learner to many topic situations. The student will learn by trial and error. This is known as the stimulus – response result in behaviorist habit forming theory. The deductive method includes a preset formula for the assessment. Rules structure student learning. The student's critical thinking becomes a guided and/or self-guided learning process. This is the constructivist pattern process in learning. Thomas, (2003, p. 3).

A survey questionnaire was administered to cohort groups of Health Care Major students. A sample of 120 online students were surveyed and 84 students responded.

Chi Square Goodness of Fit testing, at alpha a priori $< .05$ results were statistically significant regarding student preferences of learning aids.

Ho: The categories of student materials/work are equally likely to aid student learning

(Students do not have a clear/significant preference of course learning aids)

$$H_0: p_0 = p_1 = p_2 = p_3 = p_4 = p_5$$

H1: (H_a) Students do have a preference of course materials to aid their learning

Chi Square Goodness of Fit Testing Formula =

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

k-1 degrees of freedom

k = number of categories/5 - 1 = 4 df

(always a right tailed test)

Assessments

Course objectives generally drive the assessments in learning. Assessments are expected by the learner and they are both competitive and non-competitive tools. Criterion testing is non-competitive. Norm referenced tests compare one learner to another in past or current situational events.

PBL is closely matched to actual/existing situations. The students must be decisive, resourceful, investigative, critical thinkers based on assigned objectives, self-directed, and independent learners. They should (will) find solutions. Often the solutions are found online in the topic fields of business, healthcare management, human resources, policy and social sciences.

Multimedia benefits enhance the student's decisive and critical thinking based on assigned objectives of self-directed and independent learners. Evidence suggests that lectures can present barriers to learning for many students, but online multimedia materials could offer many benefits for learning and teaching; thus, the potential to alleviate barriers in PBL. Wald (2008).

Furthermore, to support this agreement, Wald cited for example, speech recognition (SR) potentially benefit all learners automatically and cost-effectively, which provides synchronized captions and transcripts of live or recorded speech (Bain et al., 2005). Even though Bain's research focused on how interacting with multimedia can inform developments in using automatically synchronized speech recognition, any resulting benefits transcend to preferred learning and teaching styles that could influence PBL.

Catalyst to Learning

Those surveyed preferred ownership and problem solving in learning. Paper/case assessment, to include online research, were the methods of assessments used and often required solutions, selection choices, regarding situational practices/problems.

It is important to nurture these would be health workers through training activities during their program of study (Baker, 1989). The ideal student might become the ideal “professional”. They would have a sense of self-worth, respect others, be loyal to their sponsor, maintain the highest of standards in their field, give care that is honest, accurate and gentle, consider the patient on the whole as body, mind, and spirit and will also, by role modeling, encourage growth of their ranks (Brown-West, 1991); (Carnevale, Villet, and Holland, 1990); (Fauser, 1992); (McMillan & Reed, 1994).

Educators have to address any or all of the following issues: retraining of displaced workers; content expansion; theory and methodology of instruction; increased education in licensed occupations will enhance the image and expand the arena of adult education. Required continuing education will increase development of testing and certification (Bell, 1988); (Buzzell, 1986); (Daggett, 1991); (Dole, 1989); (Gupta & Konrad, 1992); (Schroeder, 1993).

Students and Learning Preferences

A survey questionnaire was administered to cohort groups of Health Care Major students. There were 120 students surveyed and 84 responses. The study was designed to test for (no) preferences of student course aids with respect to critical thinking, learning and assessment. The aids included the text, lectures, subject handouts, specific end of course paper table of contents, and a sample (rubric) paper. The expected tally for no preference of course aids was 20% per category.

The course delivery format varied to include traditional on ground, blended and/or Video Teleconferencing Technology (VTT).

Chi Square Goodness of Fit Testing suggested that a given/provided Table of Contents for the end of course a paper, as an assessment, was most preferred by more than 90% of the responders. A clear winner for student second choice of aid was a rubric paper. It should be noted that 96% of the responders ranked the text book last of course aids.

Evaluation Outcomes

All responders reported that course aids (used in the cohort courses) were also helpful in their “follow on” courses. All students self-reported grade point averages of “B” or higher. Thirty six students reported “A” grades.

These five course aids are (in rank of order):

1. Preset/given paper table of contents
2. Rubric/sample report
3. Subtopic lectures
4. Student sharing/group work
5. Text book

The Chi Square results suggest there is a significant difference in student learning aid preferences and assessments. The investigation was also to understand effect of PBL and student research. We suggest that Electronic reading (E-reading) is more efficient than traditional textbook reading.

eReading: What Value to Online Education?

The technology age has ushered in unprecedented information capabilities. This means reading is not exempted from this trend. There are many choices of devices on which to read eBooks. Readers appear to want easier access to eBooks. For instance, some students make course choices partly based on availability of eBooks to allow them to eRead anywhere. There is a plethora of options as the market searches for best solutions. Many schools are actually part of the pilot program as their students provide feedback along the way. Many of these schools, especially the online (or blended ones) have in some way announced winning solutions tailored to both their schools and students.

Conclusion

Problem based learning (PBL) is relatively new in the realm of learning, use of learning aids and assessment. The teaching and learning theories (inductive and deductive) and critical thinking are the benchmarks in determining the success of teaching techniques in a course. The “Table of Contents” is the hallmark of preferred learning aids for students. Textbooks and lectures can, and are, barriers to learning for many students. Therefore, they are a hindrance to success. The learning aids surveyed included the text, lectures, subject matter handouts, a specific end of course paper table of contents, and sample (rubric) paper. The course delivery format varied to include online, traditional on ground, blended and or video teleconferencing (VTT). The text book was definitely considered an outlier. The Chi Square Goodness of Fit test results suggested there is a significant difference in student learning aid preferences and assessments at alpha a priori $<.05$ percent. Future research suggests additional studies, such as a time series, is indicated. eReading should be specifically named as a choice of preferred learning aids to further substantiate that a hard copy text is out of vogue and therefore does not aid in Problem Based Learning.

References

- Akbulut, Y. (2007). Effects of multimedia annotations on incidental vocabulary and reading comprehension of advanced learners of English as a foreign language, *Instructional Science*, (pp. 499-517).
- Ardac, D., & Unal, S. (2008). Does the amount of on-screen text influence student learning from a multimedia-based instructional unit? *Instructional Science: An International Journal of the Learning Sciences*, (pp. 75-88).

- Bain, K., Basson, S.A., Faisman, A., Kanevsky, D. (2005). Accessibility, transcription, and access everywhere, *IBM Systems Journal*, (pp. 589-603). Retrieved December 12, 2005, from <http://www.research.ibm.com/journal/sj/443/bain.pdf>
- Baker, J. (Summer, 1989). The recruitment and retention of minority and disadvantaged allied health students. *Journal of Allied Health*, (pp. 389-401).
- Bell, C.W. (October 7, 1988). Training tomorrow's workers. (Hospital Labor Shortage) (editorial). *Modern Healthcare*, (p. 88).
- Brockett, R. G. (2002). Conceptions of self-directing learning (Book Review). *Adult Education Quarterly*, (pp. 155-156).
- Brown-West, A. P. (Summer, 1991). Influences of career choice among allied health students. *Journal of Allied Health*, (pp. 181-189).
- Buzzell, C.H. (1993). Tech prep, special needs, and the Perkins Act. *Vocational Education Journal*, (pp. 4-5).
- Carnevale, A. P., Gaines, L. J., Villet, J., & Holland, S. L. (1990). Training partnerships: Linking employers and providers. Alexandria, Virginia: American Society for Training and Development, Washington, D.C.: U.S. Department of Labor. Employment and Training Administration.
- Chizmar, J.F., & Walbert, M.S. (1999). Web-based learning environments guided by principles of good teaching practice. *Journal of Economic Education*, (pp. 248-264).
- Chun, D. M. (2001). L2 reading on the web: Strategies for accessing information in hypermedia. *Computer Assisted Language Learning*, (pp. 367-403).
- Chun, D.C., Payne, J.S. (2004). What makes students click: working memory and look-up behavior. *System* (pp. 481-504).
- Dagget, Dr. W. R. (1991). The future of employment and implications for education.
- Dole, E. (October, 1989). Preparing the work force of the future. *Vocational Educational Journal*, (pp. 18-20).
- Fausser, J.J. (1992). Accreditation of allied health education: Assessing for educational effectiveness. *The Journal of the American Medical Association*, (p.1123).
- Garrison, D.R. (2003). Self-directed learning and distance education, In M.G. Moore & W. Anderson (eds.), *Handbook of Distance Education* (pp. 161-168). Mahwah, NJ: Lawrence Erlbaum.
- Graff, M. (2003). Individual Differences in Sense of Classroom Community in a Blended Learning Environment. *Journal of Educational Media*, Vol. 28, Nos. 2-3
- Grow, G. (1991). Teaching learners to be self-directed: A stage approach. *Adult Education Quarterly*, (pp. 125-149).
- Gupta, G.C. & Konrad, T.R. (1992). Allied health education in rural health professional shortage areas of the United States. *The Journal of the American Medical Association*, (pp. 268, 1127).

- Hannafin, M.J., Hill, J.R., Oliver, K., Glazer, E., & Sharma, P. (2003). Cognitive and learning factors in Web-based distance learning environments. In M.G. Moore, & W.G. Anderson (Eds.), *Handbook of distance education* (pp. 245-260). Mahwah, NJ: Lawrence Erlbaum
- Harrison, R. (1978). How to design and conduct self-directed learning experiences. *Group and Organization Studies*, (pp. 149-167).
- Hill, J.R., & Hannafin, M.J. (2001). Teaching and learning in digital environments: The resurgence of resource-based learning. *Educational Technology Research and Development*, (pp. 37-52).
- McMillan, J. H., & Reed, D.F. (1994). At-risk students and resiliency: Factors contributing to academic success. *The Clearing House*, (p. 137).
- Merriam, S.B. (2001). Andragogy and self-directed learning. *New Directions for Adult and Continuing Education*,(pp. 3-14).
- Merriam, S.B. & Caffarella, R.S. (1999). *Learning in Adulthood*. San Francisco: Jossey-Bass.
- Ozono, S. & Ito, H. (2003). Logical connectives as catalysts for interactive L2 reading. *System*, (pp. 283-297).
- Schroder, C.C. (1993). New students – new learning styles. *Change*, (p. 21).
- Song, L. (2005). *Adult learners' self-directed learning in online environments: Process, personal attribute, and context*. Unpublished Dissertation, The University of Georgia, Athens, GA.
- Song, L., Singleton, E.S., Hill, J.R., & Koh, M.H. (2004). Improving online learning: Student perceptions of useful and challenging characteristics. *Internet & Higher Education*, (pp. 59-70).
- Thomas, Mary (2003) *Assessment and Learner Performance in Problem Based Learning (PBL)*. Number 1. Vol 1. Singapore: Temasek Polytechnic
- Tozcu, A. & Coady, J. (2004). Successful learning of frequent vocabulary through CALL also benefits reading comprehension and speed. *Computer assisted language learning*, (pp. 473-495).
- Wald, Mike (2008) Learning Through Multimedia: Automatic Speech Recognition Enhancing Accessibility and Interaction. *Journal of Educational Multimedia and Hypermedia*, (pp. 215-233).

Saint Leo University

This survey, based on your candid responses, will assist university faculty in the design of course work assignments with respect to course delivery settings.

The survey is brief, just nine questions, and will not take much of your time.

Please check all that apply for each questions.

1. What is your current student status?

Freshman _____ Senior _____
Sophomore _____ Graduate _____
Junior _____ GPA _____

2. Have you ever help a health care registry/certification? Yes _____ No _____

3. If yes, which one? _____

4. Have you taken HCA/HCM 402 Community Health (Epidemiology) Yes _____ No _____

5. If yes, which delivery setting were you in?
Traditional in class _____
Distance/VTT _____
E-learning _____
Blended _____

6. Have you taken HCA/HCM 498 Policy and Planning? Yes _____ No _____

7. If yes, which delivery setting were you in?
Traditional in class _____
Distance/VTT _____
E-learning _____
Blended _____

8. Were the other students at your site helpful?
Encouraging _____
Willing to tutor others _____
Shared by "show and tell" _____

9. Rank in order what was helpful regarding learning and course aids:

Preset/given paper table of contents _____ Sub topic lectures _____

Drafting section pages in class by groups _____

Sample report _____ Text book _____

10. Did any above named activities aid you in "follow on" courses? Yes _____ No _____

Thank you for both your time and valued input.

If interested in the survey results, please contact the surveyors at _____@saintleo.edu

