

The Assessment Handbook

Volume 8, July 2012

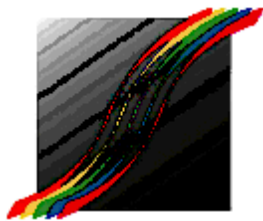


Philippine Educational Measurement and Evaluation Association

The Assessment Handbook is one of the official publications of the Psychometrics and Educational Statistics Division of the Philippine Educational Measurement and Evaluation Association. The journal publishes special articles that are themed related in assessment, evaluation, measurement, psychometrics, psychological testing, and statistics. Each issue of the journal is themed managed by a guest editor. The journal is international, refereed, and abstracted. The journal is presently abstracted/indexed in the Asian Education Index, Social Science Research Network, Google Scholar, Open J-Gate, and NewJour.

Copyright © 2012 by the Philippine Educational Measurement and Evaluation Association. Center for Learning and Performance Assessment, De La Salle-College of Saint Benilde, 2544 Taft Ave. Manila, Philippines

The articles of the Assessment Handbook is open access at
<http://pemea.club.officelive.com/TheAssessmentHandbook.aspx>



Publication Division of PEMA
Philippine Educational Measurement and Evaluation Association

THE ASSESSMENT HANDBOOK

Volume 8, July 2012

<https://sites.google.com/site/theassessmenthandbook/>

Articles

- 1 The Effect of Perceived Parental Behavior on Adolescent Emotional Regulation**
Jasmine Nadja J. Pinugu
- 16 The Mediating Effect of Content Knowledge for Teaching Reading to Learner-centered Strategy and Teaching Effectiveness**
Niclie Tiratira
- 30 A Path Analysis of Neuroticism, Intrinsic Religious Orientation, and Meaning in Life Among Filipino College Undergraduates**
William B. Ongsitco
- 41 Assessing and Further Exploring the Metacognitive Skills of Pre-service Teachers**
Carlo Magno
- 51 Corpus-Based Grammatical Studies of Philippine English and Language Assessment: Issues and Perspectives**
JooHyuk Lim and Ariane Macalinga Borlongan
- 63 Assessing High School Students Action Control, Student Participation, and School Ability**
Carlo Magno

◆ Editorial Advisory Board

Rose Marie Salazar-Clemeña, *Professor Emeritus, De La Salle University, Manila*

Alexa Abrenica, *De La Salle University, Manila*

Ma. Letticia Azusano, *Asian Psychological Services and Assessment Inc.*

Shu-ren Chang, *Department of Testing Services, American Dental Association, USA*

Leonore Decencente, *Center for Educational Measurement, Inc.*

Jimmy dela Torre, *Rutgers University, USA*

Karma El Hassan, *Office of Institutional Research and Testing, Americal University of Beirut, Lebanon*

John Hattie, *University of Melbourne, Australia*

Jack Holbrook, *University of Tartu, Estonia*

Anders Jonsson, *Malmo University, Sweden*

Tom Oakland, *University of Florida, USA*

Jose Pedrajita, *University of the Philippines, Diliman*

Timothy Teo, *The University of Auckland, New Zealand*

Milagros Ibe, *University of the Philippines, Diliman*

Maryann Vargas, *University of Sto. Tomas, Manila*

◆ Executive Editor

Carlo Magno, *De La Salle University, Manila*

◆ Associate Editors

Belen Chu, *Philippine Academy of Sakya*

Richard Gonzales, *Development Strategists International Consulting*

◆ Editorial Staff

Marife Mamauag, *De La Salle-College of Saint Benilde*

The Effect of Perceived Parental Behavior on Adolescent Emotional Regulation

Jasmine Nadja J. Pinugu
*De La Salle University
/ Mapua Institute of
Technology
Manila, Philippines*

This paper examined relationships between perceived positive parental behaviors (warmth and autonomy), perceived negative parental behaviors (hostility, neglect, and undifferentiated rejection), and emotional regulation strategies of cognitive appraisal and emotional suppression. It specifically sought to determine if parental behaviors have positive and negative effects on cognitive appraisal. The present study partially made use of the PART- theory, which is a socialization theory. The Parental acceptance-rejection theory (PARTheory) is an evidence-based theory of socialization that identifies causes, consequences, and correlates of interpersonal acceptance and rejection (particularly parental) across cultures. In this study, autonomy was an added construct to the warmth dimension. Means, standard deviations, correlations, and path analysis were used to arrive at the findings. Significant correlations were observed for warmth and autonomy, hostility, neglect, and undifferentiated rejection, and cognitive appraisal and suppression. However, no large effects were observed for parental behaviors on emotional regulation strategies as indicated by a path analysis model. With NFI and GFI values exceeding .9, the path analysis model was adjudged to be fit. Conclusions and recommendations are also cited.

Keywords: Parental acceptance & rejection, autonomy, emotional regulation, PARTheory

The role of parents in their children's lives cannot be ignored. Indeed, the presence and absence of parents can make or break their children's emotional and social adjustment in the future. However, more than the absence or presence of the parents, it is the quality of parent-child relationship that matters. Given recent studies about Tiger moms' authoritarian parenting, strict disciplinary measures employed by parents, and positive cultural implications of such parenting styles on adolescent development, there are benefits to

previously judged negative parenting. Another aspect of the parent- child relationship is the level of autonomy being granted by the parents. Autonomy-supportive parenting behavior entails a bilateral agreement on rules carried out in the home. The parents promote child independence and exert minimal pressure on their children to act in a certain way (Holt, et. al., 2012). However, some studies indicated that autonomy- supportive parenting was only beneficial for Western cultures rather than Eastern cultures (Qin, Pomerantz, & Wang, 2009).

The quality of parent- child relationship will certainly impact on the child's emotionality. When a parent is loving and warm, then one can expect the child to be warm and loving as well. However, when a parent is cold, controlling, and neglectful, then one can expect the child's emotional state to be negative and cold as well. According to Gross (1986), there are two ways of regulating emotions: one is by cognitive appraisal, wherein an individual will change the meaning of the situation that will entail changes in emotional expression; another is by emotional suppression, when the individual attempts to control his emotional expression without changing the meaning of the situation. According to Gross, cognitive appraisal is associated with promoting positive health while emotional suppression is associated with depression- related symptoms. Another study indicated that harsh parenting may also lead to aggressive emotions and behaviors among adolescents (Chang, et. al., 2013).

The Parental Acceptance- Rejection Theory was initially developed by Rohner (1981). However, studies pertaining to parenting have been undertaken as early as in the 1930s, 1950s, and 1970s (Rohner, 2007). The most notable study has been the one by Baumrind (1966), which classified parenting styles into three: authoritarian, authoritative, and permissive. A fourth type was added by Martin (1970), termed as neglecting or uninvolved parenting.

Rohner identified his theory as a continuum. On one end was parental acceptance, which included warmth. He further subdivided warmth into verbal and physical behavior. Warmth is conceptually defined in the theory as manifestations of comfort, support, and love perceived by the child from parents and/ or caregivers. On the other end was parental rejection, which he subdivided into three: hostility/ aggression, neglect, and undifferentiated rejection. Hostility / aggression is defined as the perceptions of children for their parents and caregivers to be irritable, annoying, angry, resentful, and impatient, among others (Rohner, 2007). The third subdimension, undifferentiated rejection, referred to the lack of attention and warmth but was not supported by manifestations of hostility and rejection. He also subdivided each of these domains into verbal and physical behavior. The uniqueness of Rohner's theory lies in two facts: one, it was based on the perception of children, and their subjective perceptions are considered priority; another is that while Baumrind's study was not supported in Asian contexts (Rohner, 2007), the PART-theory is considered culturally sensitive as it has been conducted in both Western and Eastern populations, and the instruments measures has been translated to several languages worldwide, across 77 countries.

Rohner's theory has generated a significant number of studies that covered various populations and correlated with different factors. From self-concept, esteem, and self-efficacy (Khan, et. al., 2011), to parental control (Rohner & Petengill, 1987), and across populations: adults (Hussain & Munna, 2011), young adults (Khan, et. al., 2011), transgenders (Koken, et. al, 2009), and adolescents. Some studies have cited that paternal rejection is more critical than maternal rejection (Hussain & Munna, 2011) while other studies cite both paternal and maternal rejection as resulting in more negative perceptions in later adulthood that may lead to substance abuse (Campo & Rohner, 1998).

All these studies point to the same results: perceived rejection from parents result in poor adjustment and functioning, including depression, aggression & delinquency, emotional instability, and negative worldview (Rohner, 2004). Experiences of parental warmth and acceptance have also contributed to positive functioning in adulthood. However, Rohner has cited that adolescents experience both acceptance and rejection from their parents and it would be impossible to specify just one set of experiences as solely accepting or rejecting.

The PARTheory also includes two other subtheories: personality, coping, and sociocultural contexts. It is under these aspects that causes, correlates, and consequences of perceived rejection and acceptance determine future adjustment and functioning.

In the personality subtheory, "rejected individuals are generally expected to self-propel along qualitatively different developmental pathways compared to accepted or loved people" (Rohner, 2007). For one, people who perceive their parents to have rejected are more inclined to react in dysfunctional ways. They may become aggressive, withdrawn, and generally suppressive of their emotions. Perceptions of rejection may also cause physical impairment and imbalance within the nervous system. On the other hand, individuals who perceive their parents to as loving and accepting grow up to respond positively to people around them and situations they are confronted with. They are more likely to experience healthy socio-emotional functioning.

However, given the varying perceptions and relative experiences on warmth and experience, healthy or unhealthy emotional functioning may not follow an expected path. An individual who have experienced warmth and care may also have problems in emotional functioning and adjustment in the future. There is also the likelihood that children who experienced rejection may grow up to be adjusted and healthy individuals. This complicated statement also warrants further study as another factor apart from warmth may play a role in healthy development.

According to Deci and Ryan (2000) autonomy promoting behavior is something "volitional, harmonious, and integrative rather than pressured, conflicted, and alienating" (as cited in Joussemet, et al., 2008). As opposed to parental control, it fosters child independence as parents include their children in family decision-making, which has been found to be beneficial among American adolescents (Wang, Pomerantz, & Cheng, 2007; Smetana & Gettsman,

2006), and in the development of decision- making skills (Wray- Lake, Crouter, & McHale, 2010).

Autonomy in adolescents may be manifested in a number of domains (Wray- Lake, Crouter, & McHale, 2010). Personal domains include decision-making behavior that has bearing on personal aspects of life, such as appearance. Social- conventional domains cover cultural norms, in which families, communities, and society at large dictate. Prudential domains cover health and safety issues. Lastly, multifaceted decisions reflect overlapping domains, such as personal, with prudential, with social- conventional domains. Researchers have cited that autonomy is achieved earliest in personal domains and are least experienced in prudential domains. Lastly, the same study posited that autonomy is observed beginning in middle childhood.

Parental autonomy has also been studied among homosexual male adults. It was concluded that low autonomy supportive parenting results in non-acceptance of self, use of defensive strategies (specifically reaction formation), homophobia, and low self- esteem (Weinstein, et al., 2012).

The experience of parental autonomy may also vary with respect to culture. While American and European adolescents demonstrate more independence in their decision-making skills and differ from their parents, Chinese children demonstrate autonomy while they have internalized parental values and attitudes (Bao & Lam, 2009). Autonomy was also observed to promote emotional and academic functioning (Wang, Pomerantz, & Chang, 2007). However, perceptions of autonomy by these adolescents may be culturally different; but both perceptions appear to promote their well- being.

Emotional Regulation has been defined by Gross (1998) as “processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions”. Two responses have been attached to emotional regulation: reappraisal and suppression. Reappraisal involves changing the way a situation is perceived in order to decrease emotional impact. For example, when a child finds himself in the dark and is feeling scared, the parent helps the child by stating “there is nothing to be afraid of the dark. There are no monsters”. It is usually regarded as more positive than suppression. On the other hand, suppression is inhibiting the signs of inner feelings. In the same example, instead of supporting the child, the parent may state “you’re a big boy now, only babies cry in the dark”. Reappraisal is considered to be more beneficial since it decreases emotional experience, thereby promoting healthy development. Suppression, however, decreases emotional expression only, and not emotional experience. Further, reappraisal has not been found to affect memory, which is the opposite case with regard to suppression. However, both concepts have not been thought of as a continuum; depending on the situation, a person may employ both strategies to a certain extent, or may frequently use both, depending on the nature of the situation.

A warm and affective climate has been associated with mental well- being (Fry, et.al., 2011) and self- efficacy (Wills & Pkhrel et al., 2011). On the other

hand, poor emotional regulation resulted to poor academic competence, substance abuse, and delinquency (Wills & Pkhrel et al., 2011).

The present study investigated how parental warmth, autonomy, hostility, neglect, and undifferentiated rejection impact on cognitive appraisal and emotional suppression as strategies for emotional regulation. Past studies have focused on PART-theory and its application to subjective well-being, self concept, self esteem. The present study includes autonomy, which is a different construct but nevertheless is a popular topic in parenting studies. Further, the present study aims to measure its impact on emotional regulation strategies, specifically cognitive appraisal and emotional suppression, which has yet to be explored but finds tentative support within the PARTheory. Since the Emotional Regulation theory specifically states that the two are not treated as a continuum, this study will attempt to study both strategies in a continuum context. Adolescents were the chosen respondents to this study since this developmental stage is full of conflicts and crises as described in various developmental theories. Lastly, it is hypothesized in this study that positive perceptions of parents contribute to positive emotional functioning and vice versa.

This study aims to answer the following questions:

1. Is there a significant correlation between perceived positive parental behavior and cognitive reappraisal?
2. Is there a significant correlation between perceived negative parental behavior and emotional suppression?
3. Are there significant correlations between warmth/ acceptance and autonomy?
4. Are there significant relationships among hostility, neglect, and, undifferentiated rejection?
5. Is there a significant negative correlation between cognitive reappraisal and emotional suppression?

The following hypotheses were tested at the .05 level of significance: (1) Perceptions of autonomy- promoting and warm parental behavior predict healthier emotional regulation strategy (Cognitive Reappraisal). (2) Perceptions of hostility, neglect, and undifferentiated rejection predict unhealthier emotional regulation strategy (Emotional Suppression).

The study employed a correlational design. It sought to determine significant correlations among the variables of warmth, autonomy, hostility, neglect, and undifferentiated rejection.

Method

Participants

The present study included 219 respondents from Don Bosco Technical College in Mandaluyong City. All of them were informed about the nature of the research, the objectives of the study, and that their individual responses will

remain confidential. The Office for Student Affairs was responsible for the test administration.

Instruments

In order to obtain the results of the study, a self- made questionnaire entitled “Parental Behavior Questionnaire”, and the Emotional Regulation Questionnaire were used.

The Parental Behavior Questionnaire is a 50-item self- report scale that has a likert scale of 1-4. The higher the score, the more the parent is perceived as warm, accepting, and autonomy promoting, while the lower the score, the more the parent is perceived as rejecting (hostile, neglect, and undifferentiated rejection). The questionnaire was loosely based on the Parental Acceptance Rejection Theory by Rohner. However, the questionnaire included items related to Autonomy, which was not included in the theory. Cronbach’s alpha for warmth and autonomy were computed at .76; for hostility, .86 was computed; for neglect, it was .77; and lastly for undifferentiated rejection, it was .69. Based on the Cronbach’s alpha, all domain items indicate acceptability. Further, based on the confirmatory factor analysis, item 4 (under warmth), item 34 (neglect), and item 44 (undifferentiated rejection) did not load on their domains, thus they were removed from the final data analysis. Based on the RMSEA obtained which was below .08 (.066), the data gathered has a good fit with the theoretical model the instrument was based on.

The Emotional Regulation Questionnaire developed by Gross is composed of 10 items that has a likert scale of 1-5. The higher the obtained score, the more the person is predisposed toward either strategy. It is composed of suppression and reappraisal domains. Cronbach’s alpha computed for this test is .752, indicating acceptability.

Procedure

The data was gathered during the third week of March 2012. In coordination with the Office of Student Affairs of Don Bosco Technical College, instructions were given to the staff as to how the tests should be administered. The instruments were distributed over general education classes, with the OSA staff administering the tests in the presence of the professor in charge. They were informed about the nature of the research, and instructions were given to them. Questions and queries were entertained by the examiner during the test-taking. The tests were accomplished in approximately 30 minutes, after which the respondents submitted the questionnaires to the examiner. The researcher collected the accomplished instruments after a week.

Data Analysis

In analyzing the results, the mean and standard deviations were obtained from each factor. A correlation matrix was also derived to show whether

significant correlations existed within factors. Lastly, path analysis was conducted to determine the effects of parental behavior on emotional regulation.

Table 1 shows the means and standard deviations obtained across the various domains included in this study. Based on the values obtained, majority of the respondents perceive their parents as more warm and autonomy- promoting, as opposed to being hostile, neglecting, and rejecting. The respondents slightly favor cognitive appraisal as opposed to emotional suppression.

Table 1
Descriptive Statistics

Variable	N	M	SD
Warmth	219	3.07	0.50
Autonomy	219	3.09	0.52
Hostility	219	2.29	0.83
Neglect	219	2.47	0.75
Undiff. Rej.	219	2.48	0.81
C. Appraisal	219	5.00	1.00
E. Suppression	219	4.53	1.04

Given that the respondents are already in their second year or college, they may have curbed their emotional impulsivity and have settled into more mature roles. Further, their advanced ages may also contribute to a more positive appraisal of their parents' behavior, brought about by maturity and understanding.

To determine whether there are significant relationships between warmth and autonomy, hostility, neglect, and undifferentiated rejection, and cognitive appraisal and emotional suppression, the following table is presented:

Table 2
Correlation Matrix

Variables	1	2	3	4	5	6	7
Warmth	---						
Autonomy	.656**	---					
Hostility	.18	.26	---				
Neglect	.22	.27	.94**	---			
Undiff. Rejection	.22	.31	.88**	.94**	---		
C. Appraisal	.09	.22	.14	.14	.15	---	
E. Suppression	-.07	.10	-.01	.01	.04	.49**	---

** $p < .01$

Based on table 2, significant correlations exist among the variables within each domain, all of them significant at the .01 alpha level. Given that warmth and autonomy are supposed to correspond to parental acceptance and hostility, neglect, and undifferentiated rejection as corresponding to parental

rejection, the close correlations somehow signify that these variables belong to each other to their respective domains. With regard to appraisal and emotional suppression, the close correlation between these two, despite contrasting definitions, suggest that both strategies are employed by the respondents. Given that the emotional regulation theory by Gross did not treat these two concepts dichotomously, along a continuum, it means that the respondents may be equally predisposed to use both, that may be dependent on the nature of the situations they are experiencing.

Lastly, regarding the effect of parental behavior on emotional regulation, the following diagram is presented on the next page.

Based on the diagram, small effects were observed for majority of the variable domains. The effect of warmth on cognitive appraisal is only $-.10$, while a bigger effect was observed for suppression at $-.24$. Autonomy generated $.25$ for both appraisal and suppression. Hostility generated a $-.01$ effect on cognitive appraisal and $-.27$ on suppression. Neglect generated a $.08$ effect on appraisal and $.10$ on suppression. Lastly, undifferentiated rejection generated a $.03$ effect on cognitive appraisal and a $.16$ effect on suppression.

Among all effects measured, only autonomy generated the biggest effect on both suppression and cognitive appraisal. It could be hypothesized that despite their perception of their parents as autonomy- promoting, they are both predisposed to use emotional suppression and cognitive appraisal as their strategies in emotional regulation. It could also be implied by this finding that when parents are perceived to be autonomy supportive (meaning they value child independence and foster bilateral decision making with their children), the child may be skilled in using both strategies for beneficial effects; in the case of cognitive appraisal, this may be used when dealing with positive affect and suppression when dealing with negative emotion. This finding is supported by Gross (1998) in which he states that parents are the primary enforcers of emotional regulation in their children.

While negligible effects are reported for neglect and undifferentiated rejection, there is a substantial negative effect for warmth and hostility to emotional suppression. One possible explanation for this is that emotional regulation is also triggered by situational perceptions; indeed, how the person perceives his immediate situation may predispose him to suppress his emotions, especially negative ones, rather than expressing them. It can also be surmised that when parents sympathize with their children's emotions, the child may opt to avoid expressing his feelings, thus suppression. Given that majority of the respondents in this study are males, this may be one of the coping strategies they employ in managing their emotions.

However, the same argument cannot be applied for hostility, as the negative value suggests that the more the children perceive their parents as hostile, the less likely they will use suppression. Thus, what is likely is that children will fight back, thereby expressing anger. This could be a function of suppression; instead of controlling anger, they are more likely to let it out. As Gross cited, suppression is often associated with negative outcomes; thus anger, while being expressed, can be suppressed patience.

Lastly, the path model used in this study indicated goodness of fit, as evidenced by a Jöreskog-Sörbom Goodness of Fit Index (GFI) model value of .904 and Bentler- Bonnet Normed Fit Index (NFI) value of .923. Both models indicate that obtained values higher than .9 are generally considered to be well- fitting.

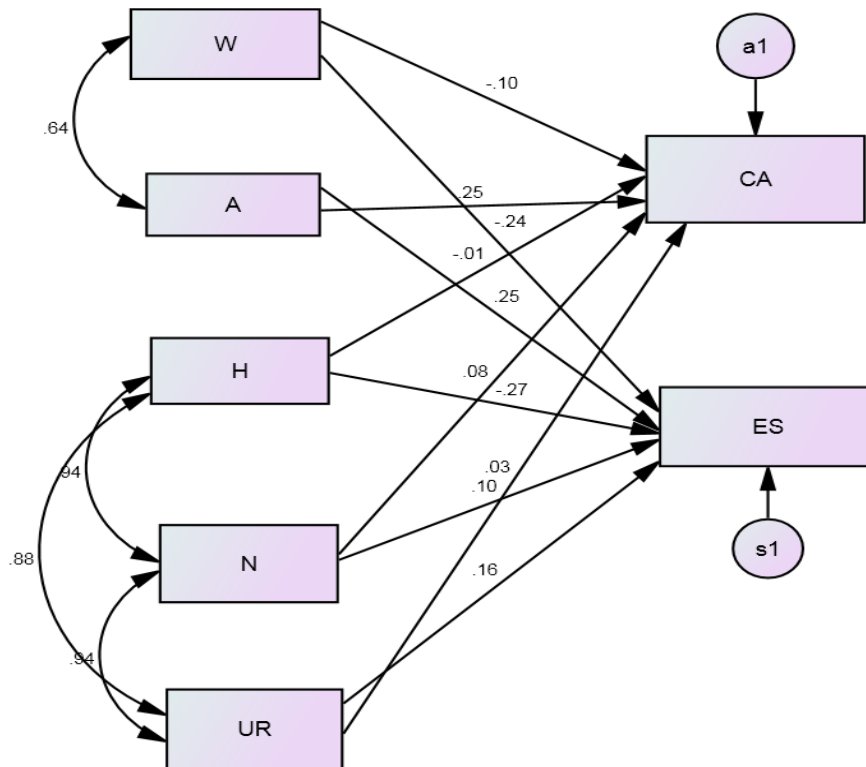


Figure 1. Path Analysis of Parental Behavior and Emotional Regulation

The purpose of this study was to determine the effect of parental behavior on adolescent emotional regulation. It specifically aimed to determine whether perceived positive parental behavior resulted in cognitive appraisal and perceived negative parental behavior resulted in emotional suppression. The study went a step further by hypothesizing negative correlations between perceived positive parental behavior and emotional suppression and perceived

negative parental behavior and cognitive appraisal. This was indicated in the study's hypotheses. The study also aimed to determine correlations among constructs within assumed domains: warmth and autonomy; hostility, neglect, and undifferentiated rejection; and, a negative correlation for cognitive appraisal and suppression.

There were significant correlations found among the variables in the study; thus, the constructs of hostility, neglect, and undifferentiated rejection certainly fit within the parental rejection domain of the PART- theory. Autonomy, while not a part of PART- theory, is significantly correlated to warmth, thereby establishing its positive nature.

However, no negative correlation was found for cognitive appraisal and suppression. This finds support in how Gross conceptualized his theory; that the two are not dichotomous parts of a continuum but rather two distinct strategies that may be employed by the individual, depending on the situation.

Lastly, the path model, established to have a good fit by GFI and NFI models, have found small effects across for warmth, autonomy, and hostility, on both cognitive appraisal and emotional suppression. Thus, both hypotheses are rejected since positive and negative parental behavior did not establish positive nor negative correlations for both emotional regulation strategies.

Based on the results of the path model, autonomy can be incorporated into the PARTheory as it may serve as another construct that is not covered within the warmth dimension. Experiences of love and support may be different from perceptions of control and independence. While parents may show warmth and love to their children, this can also be manifested in parents exercising excessive control over their children. For one, they can reason out that they are protecting their children from harm that may befall them. While this can be construed as parental control or dominance, this can be an indicator of love as well. Another aspect is when parents let the child make their own choices; he can interpret this as a sign of neglect or lack of care from the parents. Asian children may have imbibed parental wishes within their value system while at the same time manifest autonomy in their behavior. Significant correlations found between these two variables can also serve as further proof of this comfortable partnership.

Based on the above results, it can be concluded that emotional regulation is not solely a function of parental behavior. As individuals grow up, their behavioral and emotional functioning may be impacted by environmental factors uncovered in this study. Further, their personality traits and other intrinsic factors may play a hand in their emotional regulation and coping. However, autonomy did produce a positive effect on both cognitive appraisal and suppression, indicating that promotion of child independence may predispose the adolescent to deal with situations based on his personal perception. Hostility has also proven to be detrimental to emotional regulation and parents should be advised to refrain from punitive and degrading behavior toward their children. The same can be said for autonomy; parents are advised to include their children in decision making channels that may foster healthy functioning an adjustment in the future.

Given these findings, it is suggested that in future studies, both fathers and mothers, and differences in gender can be included so as to yield more significant and relevant findings in the future. Lastly, post- hoc analysis to determine discriminant validity between warmth and autonomy can be employed, given the high correlation of these two constructs.

References

- Bao,X., & Lam, S. (2008). Who Makes the Choice? Rethinking the Role of Autonomy and Relatedness in Chinese Children's Motivation. *Child Development*, 79(2), 269-283.
- Campo, A., & Rohner, R. (1991). Relationships between Perceived Parental Acceptance-Rejection, Psychological Adjustment, and Substance Abuse among Young Adults. *Child Abuse Neglect*, 16, 429-440.
- Demetriou, L., & Christodoulides, P. (2006). Parental acceptance-rejection in the Cypriot family: A social-psychological research on the PART/PARQ. Cyprus. *Journal of Science and Technology*, 5, 2-10.
- Gross, J. J., & Thompson, R. A. (in press). Emotion Regulation: Conceptual Foundations. *Handbook of Emotion Regulation*. New York: Guilford Press.
- Joussemet, M., Landry, R., & Koestner, R. (2008). A self-determination theory perspective on parenting. *Canadian Psychology*, 49(3), 194-200.
- Khan, S., Hassan S., Hussain, G., & Iram, G. (2011). Relationship of parental acceptance and rejection with psychological wellness in young Adults. *Journal of Rawalpindi Medical College*, 15(1), 24 - 26.
- Rohner, R. (2004). Parental acceptance-rejection syndrome: Universal correlates of perceive rejection. *American Psychologist*, 59, 827-840.
- Rohner, R., & Pettengill, S. (1985). Perceived parental acceptance-rejection and parental control among Korean adolescents. *Child Development*, 56(2), 524 - 528.
- Smetana, J., & Gettman, D. (2006). Autonomy and relatedness with parents and romantic development in African American adolescents. *Developmental Psychology*, 42(6), 1347-1351.
- Weinstein, N., Ryan, W., DeHaan, C., Przybylski, A., Legate N., & Ryan, R. (2012). Parental autonomy support and discrepancies between implicit and explicit sexual identities: Dynamics of self-acceptance and defense. *Journal of Personality and Social Psychology*, 102(4), 815-832. DOI: 10.1037/a002685
- Wray-Lake, L., Crouter, A., & McHale, S. (2010). Developmental patterns in decision-making autonomy across middle childhood and adolescence: European American parents' perspectives. *Child Development*, 81(2), 636-651.

Appendix 1

Perceived Parental Behavior Questionnaire (Adapted from PARQ)

The following pages contain a number of statements describing the way mothers sometimes act toward their children. I want you to think about how each one of these fits the way your mother treats you.

Four descriptions are drawn after each sentence. If you think your mother almost always treats you that way, put an X in the box **ALMOST ALWAYS TRUE**; if the statement is sometimes true about the way your mother treats you then mark **SOMETIMES TRUE**. If you feel the statement is basically untrue about the way your mother treats you then ask yourself, "Is it rarely true?" or "Is it almost never true?" If it is rarely true about the way your mother treats you put an X in the box **RARELY TRUE**; if you feel the statement is almost never true then mark **ALMOST NEVER TRUE**.

Remember, there is no right or wrong answer to any statement, so be as honest as you can. Respond to each statement the way you feel your mother really is. Your response will be kept confidential. Thank you!

STATEMENTS	True of my Mother		Untrue of my Mother	
	Frequently True	Sometimes True	Rarely True	Almost Never True
1. My mother compliments me.				
2. My mother praises me to other people.				
3. My mother allows me to make major decisions about the way I look.				
4. My mother does not meddle in my choice of friends and romantic partners.				
5. My mother severely punishes me, even for a small mistake.				
6. My mother complains about me to other people.				
7. My mother is not available when I need her.				
8. My mother does not listen to the things I say.				
9. I feel my mother would not be bothered if I drop out of school.				
10. I feel my mother would not give me any advice.				
11. My mother hugs and kisses me.				
12. My mother talks to me in a loving way.				
13. My mother respects my opinion, even if her opinion is different from mine.				
14. My mother consults with me before making any decision.				
15. My mother always threatens me, even when I'm not doing anything wrong.				
16. My mother embarrasses me in front of other people.				
17. My mother has no time to talk to me.				
18. My mother would rather work than talk to me.				

Cont. Appendix				
19. I feel hurt when my mother does not share her problems with me.				
20. I feel my mother avoids me.				
21. My mother is interested in what I do.				
22. My mother likes to spend time with me.				
23. I can freely express my opinions to my parents, regardless of their reactions.				
24. My mother trusts me to make the right decision.				
25. More often than not, my mother hurts my feelings.				
26. My mother is often unkind towards me.				
27. My mother is not concerned about what I do.				
28. My mother would rather be with other people than to be with me.				
29. I feel my mother does not trust me to make the right decisions.				
30. I feel that my mother does not care about me.				
31. My mother shows her love to me through her actions.				
32. My mother comforts me when I am sad.				
33. My mother allows me to go out with my friends.				
34. My mother does not control my actions excessively.				
35. More often than not, my mother makes me feel I did not meet her standards.				
36. I often feel my mother does not appreciate the things I do.				
37. My mother does not ask where I go when I come home late.				
38. My mother does not bother to help me with school works.				
39. I feel my mother is too busy to think about what I need.				
40. I feel I am not prioritized by my mother.				
41. My mother takes care of me.				
42. My mother values my opinions.				
43. My mother talks to me as an adult, not as a child.				
44. My mother never forces me to tell her what I do.				
45. I feel my mother would just laugh if I say I love her.				
46. I feel my mother would push me away if I try to hug her.				
47. My mother ignores my presence in the house.				
48. My mother doesn't go to my school activities, even if parents are invited.				
49. I feel my mother wants to get rid of me.				
50. I feel my mother does think about me.				

Appendix 2

Emotion Regulation Questionnaire (ERQ)

Gross & John

The Emotion Regulation Questionnaire is designed to assess individual differences in the habitual use of two emotion regulation strategies: cognitive reappraisal and expressive suppression.

Instructions and Items

We would like to ask you some questions about your emotional life, in particular, how you control (that is, regulate and manage) your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another, they differ in important ways. For each item, please answer using the following scale:

1-----2-----3-----4-----5-----6-----7
 strongly neutral strongly
 disagree agree

1. ____ When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about.
2. ____ I keep my emotions to myself.
3. ____ When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.
4. ____ When I am feeling positive emotions, I am careful not to express them.
5. ____ When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.
6. ____ I control my emotions by not expressing them.
7. ____ When I want to feel more positive emotion, I change the way I'm thinking about the situation.
8. ____ I control my emotions by changing the way I think about the situation I'm in.
9. ____ When I am feeling negative emotions, I make sure not to express them.
10. ____ When I want to feel less negative emotion, I change the way I'm thinking about the situation.

Appendix 3 Model Fit Summary

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.103	.904	.615	.226
Saturated model	.000	1.000		
Independence model	.224	.486	.314	.364

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.923	.769	.929	.783	.928
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

The Mediating Effect of Content Knowledge for Teaching Reading to Learner-centered Strategy and Teaching Effectiveness

Niclie Tiratira
University of Rizal System

The objective of this study is to know the pre-service teacher's content knowledge for teaching reading, the use of learner-centered strategy, and if this strategy and content knowledge leads to teaching effectiveness. The study will answer the following questions: (1) What is the level of pre service teachers content knowledge for teaching reading, learner-centered strategy, and teaching effectiveness? (2) Does content knowledge for teaching reading mediate the effect to learner-centered strategy and teaching effectiveness? There were 60 participants from the University of Rizal System (URS) Pililla campus. Linear regression analysis, reliability analysis, factor analysis, and Sobel test was used to analyze the data. Baron and Kenny's procedure was used in the mediation analysis. The Sobel test revealed that the indirect path from learner centered strategy and teaching effectiveness was significant ($z=-2.059$, $p>.05$). The study revealed that content knowledge for teaching reading mediates the effect to learner-centered strategy and teaching effectiveness.

Keywords: Content-knowledge, Learner-centered strategy

Teaching reading, like other subjects, requires knowledge that goes substantially beyond just being a good teacher. In addition to having strong reading skills, well prepared reading teachers also need to develop deep knowledge of language and text; for example, reading teachers need to understand reading in ways that help them decipher the stumbling attempts of a beginning student or to select appropriate words or text for students of different ability levels. Emerging arguments and evidence suggest that it is this knowledge about reading itself is that poorly understood by

literate adults who do not teach children to read (Brady & Moats, 1997; McCutchen & Berninger, 1999; McCutchen et al., 2002; Moats, 1994; Moats & Lyon, 1996; Phelps & Schilling, 2004; Wong-Fillmore & Snow, 2002).

In the Philippines, it is still a challenging task for elementary teachers to let their students learn to read with comprehension. Training the pre-service teachers to instructional strategies on reading with comprehension is important. However, instructional strategies is only one aspect of teaching that teachers need to learn, thus the pre-service teachers should also be equipped with both the content knowledge for teaching reading and instructional strategies to make them effective in teaching students to read.

Haverback and Parault (2008), believe that if pre-service teachers are trained through quality programs that offer domain specific hands-on experiences, those pre-service teachers may be better prepared when they enter the classroom to meet the individual needs of the students they encounter. The needs of individual students are becoming more important in today's classrooms as the diversity of students continues to grow. They are expected to teach language and reading skills to a growing number of children who have learned, or are in the process of learning, English as their second language. In addition, students enter school with varying levels of knowledge. Some know many sight words and have been exposed to many books, while other live in low social economic status homes where books are not available. Still, other children have cognitive deficits or language delays. All of the abovementioned factors have been found to have an impact with how an elementary school student learns to read (Snow, Burns, & Griffin, 1998).

The objective of this study to know the pre-service teachers content knowledge for teaching reading, if they are using learner-centered strategy and if this strategy and content knowledge leads to teaching effectiveness. The study will also test for the indirect effect of content knowledge in teaching reading to learner-centered strategy and teaching effectiveness. The study can further confirm the use of a specific strategy in teaching reading that will lead to teaching effectiveness.

The study will answer the following questions: (1) What is the level of pre service teachers content knowledge for teaching reading, learner-centered strategy, and teaching effectiveness? (2) Does content knowledge for teaching reading mediate the effect to learner-centered strategy and teaching effectiveness? (3) Does the relationship of learner-centered strategy and teaching effectiveness decreases when content knowledge for teaching reading was added as a third variable?

Content Knowledge for Teaching Reading

The Content knowledge for teaching reading sought to measure three distinctions in the type of content knowledge used in teaching: content knowledge (CK), knowledge of content and students (KCS), and knowledge of content and teaching (KCT). The primary distinction between items in each of

these categories is in how knowledge of reading is used in the work of teaching. Content knowledge items focus on text and language and include, for example, knowledge of what makes a word phonetically regular or what makes one comprehension question different from another. Items in this category do not involve interpreting student work or making teaching decisions. Knowledge of content and student questions requires using knowledge of students. For example, teachers need to understand how students will engage particular text or what characterizes students' reading errors. Items in this category do not involve making teaching decisions (Phelps, 2005).

Reading acquisition is arguably the most complex, developmentally interesting cognitive task that children are expected to undertake while in school. Although there is a growing recognition that certified and highly trained teachers positively influence student learning and development (Darling-Hammond, 2000), the effective teaching literacy skills requires not only knowledge cultivated through basic pre-and in- service programs, but also that educators acquire and apply a sophisticated understanding of the nuances of the English language (Cunningham, 1990). As our education system attempts to identify the most effective strategies to minimize the discrepancies between underserved and more advantaged populations, it is critical that both educators and researchers recognize the powerful impact teacher knowledge of early literacy skills can have on student's long term academic success and continue empirical explorations of exactly how, when, and why teachers have this influence.

However, research inquiries into each step of this process are still on going and we do not yet have the definitive answers we need in order to shift teacher knowledge and its instructional practices in ways that will support literacy development (Cunningham, 1990). Nascent research demonstrate that teacher knowledge is associated with student literacy gains, yet the field continues to grapple with questions such as how teacher knowledge and practices are associated with one another, how disciplinary knowledge is related to responsive teaching or pedagogical content knowledge and how one can best measure these knowledge constructs.

Learner-Centered Strategy

Learner-centered practices have gained attention as a way of enhancing the outcomes of teaching and learning among students. There is a shift from a directive approach in teaching to recognizing more the needs of the learners. According to McCombs and Whisler (1997) learner-centered is defined for the learner and the learning process as a positive learning environment that is created facilitating the success of students. There are 14 learner-centered psychological principles that were formulated by the American Psychological Association task force that are related to students learning, motivation, and individual differences. The integrating factors that affect the learner and his learning are metacognitive and cognitive, affective, developmental, personal

and social, and individual differences. The major features of learner centeredness practices are: (1) the learners are included in the educational decision making process; (2) diverse perspectives of learners are encouraged; (3) individual differences of the learners are accounted for and respected; and (4) learners are co-creators of the teaching and learning process (Magno & Sembrano, 2007)

Teachers' educational beliefs influence their instructional decisions and classroom practices (Pajares, 1992). The personal epistemological beliefs one holds about teaching and learning influences how one interprets instruction and thus engages with the material (Hofer, 2001). Van Berkel and Schmidt (2000) found a relationship between type of instruction, student motivation, and performance. Fundamentally different, learner centered teaching shifts the responsibility of learning on actively engaged students while the teacher becomes a facilitator of the learning process and helps students learn concepts rather than acquire knowledge (Barr & Tagg, 1995; Kember, 1997). Pre-service teachers who experience learner-centered teaching methods as education students do not necessarily translate into the ability to use learner-centered teaching methods as teachers. Both Simmons et al. (1999) and Klein (2001) found that beginning and pre service teachers in secondary science and mathematics believed they taught their students using methods that were based on the assumptions of learner-centered teaching. However, these teachers' practice contrasted starkly with their professed student centered beliefs.

Teaching Effectiveness

According to Scheerens (2004), "teaching effectiveness" or "instructional effectiveness" is the effectiveness of enhancing conditions situated at the teacher and classroom level. Research results in the field of teaching effectiveness are centered on three major factors: effective learning time, structured teaching and opportunity to learn in the sense of a close alignment between items taught and items tested (Scheerens, 2004). Thus, for the pre service teacher's teaching effectiveness involves training experience in different public schools. As a part of their training, pre service teachers study and experience a variety of instructional strategies. The topics are addressed in students' texts, discussed in their base groups, modeled by the professor, and practiced by the pre service teachers in the class as learners. Why is measuring teaching effectiveness so important? Because the evidence produced is used for major decisions about our future in academe. There are two types of decisions: formative, which uses the evidence to improve and shape the quality of our teaching, and summative, which uses the evidence to "sum up" our overall performance or status to decide about our annual merit pay, promotion, and tenure. The former involves decisions to improve teaching; the latter consists of personnel decisions. As faculty, we make formative decisions to plan and revise our teaching semester after semester. Summative decisions are final and

they are rendered by administrators or colleagues at different points in time to determine whether we have a future. These decisions have an impact on the quality of our professional life. The various sources of evidence for teaching effectiveness may be employed for either formative or summative decisions or both (Berk, 2005). According to Berk (2005), a unified conceptualization of teaching effectiveness is proposed to use multiple sources of evidence, such as student ratings, peer ratings, and self-evaluation, to provide an accurate and reliable base for formative and summative decisions. Multiple sources build on the strengths of all sources, while compensating for the weaknesses in any single source. This triangulation of sources is recommended in view of the complexity of measuring the act of teaching and the variety of direct and indirect sources and tools used to produce the evidence. The performance evaluation is a measurement of feedback of instructional effectiveness of the pre-service teachers (Berk, 2005).

Theoretical/ Conceptual Framework

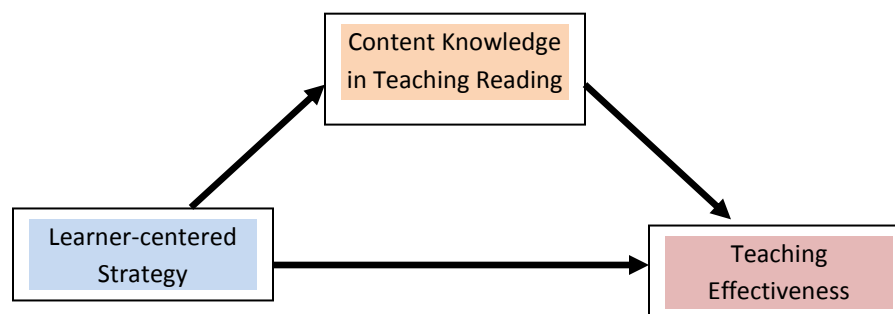


Figure 1. Conceptual Model Showing the Relationship of Learner-centered Strategy, Teaching Effectiveness and Content Knowledge for Teaching Reading

The model shows that learner-centered strategy has a direct effect to teaching effectiveness and that content knowledge is added as a third variable that could mediate the effect of learner centered strategy to teaching effectiveness. It is being conceptualized that content knowledge for teaching reading can serve as a variable that can cause an indirect effect between learner centered strategy to teaching effectiveness. Thus, content knowledge for teaching reading can reduce the direct effect of learner centered strategy to teaching effectiveness. If there will be a mediation effect of content knowledge for teaching reading a pre service teacher will not be effective in teaching using the learner centered strategy without the content knowledge for teaching reading. The direct effect of learner centered strategy to teaching effectiveness will be reduced when content knowledge for teaching reading will be added as a third variable.

The study is anchored on the theory on pedagogical content knowledge by Shulman (1986). He introduced the phrase pedagogical content knowledge

and sparked a whole new wave of scholarly articles on teacher's knowledge of their subject matter and the importance of this knowledge for successful training. In Shulman's theoretical framework, teachers need to master two types of knowledge: (a) content, also known as "deep" knowledge of the subject itself, and (b) knowledge of the curricular development. Content knowledge encompasses what Bruner (as cited in Shulman, 1992) called the "structure of knowledge" the theories, principles, and concepts of a particular discipline. Especially important is content knowledge that deals with the teaching process, including the most useful forms of representing and communicating content and how students' best learn the specific concepts and topics of a subject. "If beginning teachers are to be successful, they must wrestle simultaneously with issues of pedagogical content (or knowledge) as well as general pedagogy (or generic teaching principles)" (Ornstein, Thomas, & Lasley, 2000, p.508). Like other professionals who possess a body of knowledge unique to their profession, teachers need to master the essential content, skills, and strategies required for effective teaching.

Method

Participants

There were 60 participants from the University of Rizal System (URS) Pililla campus. They were fourth year students of the Bachelor of Secondary Education major in English. These participants were done with their teaching practicum in various schools in Rizal and had experienced practice teaching in both elementary and secondary levels.

Instruments

The instruments used in the study: The Teacher Questionnaire of SII (TQ), Learner-centered Practices Questionnaire (LCPQ), and URS Performance Evaluation.

The Teacher Questionnaire of SII (TQ). Items developed to assess teacher knowledge in the two broad topic areas of comprehension-morphology, vocabulary, comprehension strategies and questions, genre, fluency, and other topics related to comprehending the meaning of words and text of word reading (e.g. Birds of a feather flock together. Yes, No, I'm not sure); and word analysis -phonemic awareness, letter sound relationships, word frequency, and other topics related to the reading and decoding of words and their print and sound elements. (e.g. Put a mark (X) for each word: said - high frequency, low frequency, and I'm not sure) (Phelps, 2004).

Internal reliability analysis of the whole scale using the actual empirical data of the study revealed a reliability coefficient based on Cronbach's alpha of .732 and Kendall's coefficient of concordance W of .786 with ANOVA

Friedman's Test using the SPSS software. Out of the twenty items (6-26) under the Knowledge of Structure and Content only 9 items (13, 16, 17, 18, 19, 20, 21, 22, & 23) were included using the principal component factor analysis of the SPSS software.

Learner-Centered Practices Questionnaire (LCPQ). Developed by Magno and Sembrano (2007), the LCPQ is based on the principles of the learner-centered practices (see McCombs, 1997). The items were constructed under the areas of (1) positive interpersonal characteristics (items 1 to 5), (2) encourages personal challenge (items 6 to 10), (3) adopts class learning needs (items 11-15), and (4) facilitates the learning process (items 16 to 19). Using the empirical data from this study the LCPQ yielded an overall reliability or Cronbach alpha of the scale which is .902 indicating high internal consistency of the items. Factor analysis was also done and all of the items fall under the dimensions it should include based on the factor loadings.

University Rizal Systems (URS) Performance Evaluation Measures. The scale is being used by URS for five years now. The evaluation includes Students Evaluation, Peer Evaluation, and Self Evaluation. According to Berk (2005), a unified conceptualization of teaching effectiveness is proposed to use multiple sources of evidence, such as student ratings, peer ratings, and self-evaluation, to provide an accurate and reliable base for formative and summative decisions. Multiple sources build on the strengths of all sources, while compensating for the weaknesses in any single source. This triangulation of sources is recommended in view of the complexity of measuring the act of teaching and the variety of direct and indirect sources and tools used to produce the evidence. The performance evaluation is a measurement of feedback of instructional effectiveness of the pre-service teachers.

Procedure

A letter noted by the dean of the College of Science of the Morong, Rizal campus was given to the to the College of Social Science and Humanities dean of the Pililla campus asking permission to conduct the study. After the approval of the university head administrators, the schedule of the pre-service teachers was noted for possible schedule for the administration of the tests. Token for the pre-service teachers was given for cooperation and motivation for answering the different tests. The first measure that was given to the pre-service teachers was the Teacher Questionnaire of SII, followed by Personal Teaching Efficacy Scale. Student's evaluation of the pre-service teachers as well as their peer and cooperating supervisor and coordinating teacher's evaluation were gathered to measure their instructional effectiveness. After the test administration, data was encoded and statistical computation was done with excel and SPSS software. Data was analyzed and then interpreted.

Data Analysis

The linear regression model was used to identify if there was a mediation effect among the variables of content knowledge for teaching reading, learner centered strategy, and teaching effectiveness. To test the significance of the model, in the ANOVA table, find the f-value and p-value, if the p-value is smaller than the alpha, the model is significant. The “Model Summary” is a test the goodness of fit of the model. Reliability analysis was also done to test internal consistency of the instrument used using the data from the actual respondents. The reliability analysis was interpreted through the output based on the Cronbach alpha. Factor analysis was also done to analyze the data, you do a factor analysis to see if there are really several factors, and if those factors represent the dimensions of task and people skills. Sobel test was also utilized to confirm full or partial mediation from the study.

Sobel test statistic:

$$z = \frac{ab}{\sqrt{(b^2 SE_a^2) + (a^2 SE_b^2)}}$$

where a is the regression coefficient for the relationship between the independent variable and the mediator, b is the regression coefficient for the relationship between the mediator and the dependent variable, SE_a is the standard error of the relationship between the independent variable and the mediator, and SE_b is the standard error of the relationship between the mediator variable and the dependent variables

Results

The data obtained in the study indicates that 48.30 % of the respondents have above average content knowledge for teaching; 50% are using learner-centered strategy and 58.30% have above average teaching effectiveness.

Table 1

The Mean and Cumulative Percentage of Content Knowledge for Teaching Reading, Learner-centered Strategy and Teaching Effectiveness

Variables			Mean	Percentage Above Mean
Content Knowledge for Teaching Reading			4.22	48.30
Learner-centered Strategy			1.70	50.00
Teaching Effectiveness			1.28	58.30

Table 2

Model Summary of the Linear Regression Analysis of Content Knowledge for Teaching Reading, Learner-centered Strategy and Teaching Effectiveness

Model	R	R ²	Adjusted R ²	SE	Change Statistics				
					R ² Change	F Change	df	df	p
1	.262 ^a	.069	.053	.1737	.069	4.276	1	58	.043
2	.366 ^b	.134	.103	.1690	.065	4.293	1	57	.043

a. Predictors: (Constant), Learner-centered Strategy

b. Predictors: (Constant), Learner-centered Strategy, Content Knowledge

c. Dependent Variable: Teaching Effectiveness

The data shows that there is a significant overall relationship of the model wherein the learner centered strategy is the independent variable and teaching effectiveness is the dependent variable ($R=.262$, $p<.05$). Moreover, there is also a significant overall relationship of the model wherein the independent variables learner-centered strategy and content knowledge and the dependent variable is teaching effectiveness ($R=.366$, $p<.05$)

Table 3

ANOVA Table of Content Knowledge for Teaching Reading, Learner-centered Strategy and Teaching Effectiveness

Model		SS	df	MS	F	p
1	Regression	.129	1	.129	4.276	.043 ^a
	Residual	1.750	58	.030		
	Total	1.879	59			
2	Regression	.252	2	.126	4.406	.017 ^b
	Residual	1.627	57	.029		
	Total	1.879	59			

a. Predictors: (Constant), Learner-centered Strategy

b. Predictors: (Constant), Learner-centered Strategy, Content Knowledge 1

c. Dependent Variable: Teaching Effectiveness*

The table shows how well the ANOVA model fits the data. Here we need to take a look at the mean square residual, the smaller the residual in terms of the mean square the more model fits the data. For model 1 the mean square residual is small ($X^2=.030$, $p<.05$) and the model 2 has a small residual which is statistically significant ($X^2=.029$, $p<.05$). Therefore, the model fits the data.

Table 4

Coefficients Table of Content Knowledge for Teaching Reading, Learner-centered Strategy and Teaching Effectiveness

Model		Unstandardized Coefficients		Standardized Coefficients	t	p	Collinearity Statistics	
		B	SE	Beta			Tolerance	VIF
1	(Constant)	1.39	.058		23.87	.000		
	Learner-centered Strategy	-.06	.032	-.262	-2.06	.043	1.000	1.000
2	(Constant)	1.14	.134		8.49	.000		
	Learner-centered Strategy	-.05	.032	-.205	-1.61	.111	.952	1.051
	Content Knowledge	.054	.026	.262	2.07	.043	.952	1.051

Table 4 shows the beta coefficients (β) which represents the relationships of the variables after the regression analysis procedure. The beta coefficients were significant in the models 1 and 2 ($\beta = -.065$, $p < .05$; $\beta = .054$, $p < .05$). A tolerance of less than 0.20 or 0.10 and/or a variance inflation factor (VIF) of 5 or 10 and above indicates a multicollinearity problem (O'Brien, 2007). In some sense, the collinear variables contain the same information about the dependent variable. If nominally "different" measures actually quantify the same phenomenon then they are redundant. Alternatively, if the variables are accorded different names and perhaps employ different numeric measurement scales but are highly correlated with each other, then they suffer from redundancy. In the table it shows a tolerance value of .952 and VIF of 1.051 meaning that there is no collinearity problem in the variables used in the study. Every variable is unique as used in the study.

In this study the Baron and Kenny (1986) procedure in testing mediation was followed. The first condition for mediation yielded a significant association between learner-centered strategy (IV) and content knowledge for teaching reading (MV) ($\beta = -.065$, $p < .05$). The second condition for mediation was supported by a negative association between learner-centered strategy (IV) and teaching effectiveness (DV) and it yielded a significant negative association ($\beta = -.051$, $p < .05$). The third condition for mediation yielded a significant association between content knowledge for teaching reading (MV) and teaching effectiveness (DV) ($\beta = .054$, $p < .05$). The fourth condition for mediation required that the effect of the IV on the DV should substantially reduce upon the inclusion of the MV in the equation, while the MV should have a significant effect. The fourth condition was met for a) DV1 where the beta coefficient for the relationship learner-centered strategy and teaching effectiveness decreased from $-.219$ to $.019$ ($p < .05$, one tailed). Finally, the Sobel test revealed that the indirect path from learner centered strategy and teaching effectiveness was significant ($z = -2.059$, $p > .05$). Here it is being shown that

there is full mediation, meaning content knowledge for teaching reading mediate the effect to learner-centered strategy and teaching effectiveness.

Discussion

The study revealed that the 48.30 % of the pre service teachers in URS Pililla campus have an above average content knowledge for teaching reading. 50% of them use the learner-centered strategy and 58.30 % have an above average teaching effectiveness.

Moreover, study revealed that content knowledge for teaching reading has indirect effect to learner-centered strategy and teaching effectiveness. The pre-service teachers increased use of the learner-centered strategy will decrease the effect to content knowledge for teaching reading. The negative association between the learner-centered strategy and content knowledge for teaching reading can be explained by citing the characteristic of the strategy. The learner-centered strategy's characteristics is that the learners are included in the educational decision making process which primarily is not applicable for those pupils who are being taught how to read. The use of learner centered strategy makes the pre- service teachers think that they would not need more of the content knowledge in teaching reading since children using these strategy are expected to be learners that are co-creators of the teaching and learning process (Magno & Sembrano, 2004). However, content knowledge for teaching reading has a positive association to teaching effectiveness. The pre-service teacher's increased content knowledge in teaching reading will also increase their teaching effectiveness. This study further supports the concept of Hofer (2001) and Schommer (1990) stating that the personal epistemological beliefs one holds about teaching and learning influences interpretation of instruction and the ways of engagement with the instructional material. Successful teachers know the content and can determine the essential knowledge and skills that are necessary for mastery of the subject in order to integrate them into effective instruction (Langer, 2001).

The study is significant in understanding that the instructional strategy that teachers use in teaching can also affect their content knowledge. If teacher's instructional strategy does not match the content knowledge in specific domain area negative association can occur. The negative association between learner-centered strategy and content knowledge of pre-service teachers does not lead to immediate superior's low evaluation. The immediate supervisor finds the pre-service teachers to be effective in their teaching.

It is recommended that future studies should venture on the teacher-centered strategy in relation to content knowledge in teaching reading. The teacher-centered strategy can be tested for positive relationship to content knowledge for teaching reading and teaching effectiveness. Also, possible increase in sample size can also be done to further investigate positive association between variables specifically between learner-centered strategy and content knowledge in teaching reading.

References

- Barr, R. B., & Tagg, J. (1995, November/December). From teaching to learning: A new paradigm for undergraduate education. *Change Magazine*, 27(6), 12-25.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Berk, R. A., (2005). Survey of 12 strategies to measure teaching effectiveness. *International Journal of Teaching and Learning in Higher Education*, 17, 48-62.
- Brady, S., & Moats, L. (1997). *Informed instruction for reading success: Foundations for teacher preparation*. Baltimore, MD: International Dyslexia Association.
- Cunningham, A. E. (1990). Explicit versus implicit instruction in phonemic awareness. *Journal of Experimental Child Psychology*, 50, 429-444.
- Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of state policy evidence. *Educational Policy Analysis Archives*, 8(1), 1-42.
- Dees, D. M. (2005). *How do I deal with these new ideas?: The psychological acculturation attitudes of rural students*. Paper presented at 2005 American Education Research Conference, Montreal, ON.
- Gerges, G. (2001). Factors influencing pre-service teachers' variation in use of instructional methods: why is teacher efficacy not a significant contributor. *Teacher Education Quarterly*, 4, 71-87.
- Grossman, P., & Wineburg, S. (2001). "Lee Shulman." In J. A. Palmer (Ed.), *Fifty modern thinkers on education: From Piaget to the present*. New York: Routledge.
- Haverback, H., & Parault, S. (2008). Preservice reading teacher efficacy and tutoring: A review. *Educational Psychology Review*, 20, 237-255.
- Hileman, S. E., & Knobloch, N. A. (2005). *The influence of pre-service teachers' beliefs on learning experiences in a learner-centered teaching methods course*. University of Illinois, Urbana-Champaign: Professional Development for pre-service and practicing teachers.
- Hofer, B. K. (2001). Personal epistemology research: Implications for learning and teaching. *Educational Psychology Review*, 13(4), 353-383.
- Kember, D. (1997). The intention to both memorise and understand: Another approach to learning? *Higher Education*, 31(3), 341-354.
- Klein, M. (2001). Constructivist practice, pre-service teacher education and change: The limitations of appealing to hearts and minds. *Teachers and Teaching: Theory and Practice*, 7(3), 257-269.
- Langer, J. (2001). The descent of cognitive development. *Developmental Science*, 3(4), 361-378.

- Magno, C. & Sembrano, J. (2007). The Role of teacher efficacy and characteristics on teaching effectiveness, performance, and use of learner-centered practices. *The Asia-Pacific Education Researcher*, 16, 73-91.
- McCutchen, D., & Berninger, V. W. (1999). Those who know teach well: Helping teachers master literacy related content knowledge. *Learning Disabilities Research & Practice*, 14, 215-226.
- McCutchen, D., Harry, D. R., Cunningham, A. E., Cox, S., Sidman, S., & Covill, A. E. (2002). Reading teachers' knowledge of children's literature and English phonology. *Annals of Dyslexia*, 52, 207-228.
- McCombs, B. L., & Whisler, J. S. (1997). *The learner-centered classroom and school: Strategies for increasing student motivation and achievement*. San Francisco: Jossey-Bass.
- Moats, L. C. (1994). The missing foundation in teacher education: Knowledge of the structure of spoken and written language. *Annals of Dyslexia*, 44, 81-102.
- Moats, L. C., & Lyon, G. R. (1996). Wanted: Teachers with knowledge of language. *Topics in Learning Disabilities*, 16, 73-86.
- Ornstein, A. C., Thomas, J., & Lasley, I. (2000). *Strategies for effective teaching*. New York: McGraw-Hill.
- Pajares, F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307-332.
- Phelps, G. (2005). *Content knowledge for teaching reading: Technical report on reading measures used on the study of instructional improvement teacher questionnaire*. Ann Arbor: University of Michigan: Study of Instructional Improvement.
- Phelps, G., & Schilling, S. (2004). Developing measures of content knowledge for teaching reading. *The Elementary School Journal*, 105, 31-48.
- Scheerens, J. (2004). *Review of school and instructional effectiveness research*. Commissioned by the Education for All Global Monitoring Report.
- Schommer, M. (1990). Effects of beliefs about the nature of knowledge in comprehension. *Journal of Educational Psychology*, 82, 498-504.
- Shulman, L. S. (1986). Paradigms and research programs in the study of teaching. In M.C. Wittrock (Ed.), *Handbook of research on teaching* (pp. 3-36). New York: McMillan.
- Simmons, P. E., Emory, A., Carter, T., Coker, T., Finnegan, B., Crockett, D., Richardson, et.al. (1999). Beginning teachers: Beliefs and classroom actions. *Journal of Research in Science Teaching*, 36(8), 930-954.
- Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- Van Berkel, H. J. M., & Schmidt, H. G. (2000). Motivation to commit oneself as a determinant of achievement in problem-based learning. *Higher Education*, 40, 231-242.

Wong-Fillmore, L., & Snow, C. E. (2002). What teachers need to know about language. In A. Adger, C. E. Snow, & D. Christian (Eds.), *What teachers need to know about language* (pp. 24-35). McHenry McHenry, IL: Center for Linguistics.

A Path Analysis of Neuroticism, Intrinsic Religious Orientation, and Meaning in Life Among Filipino College Undergraduates

William B. Ongsitco
PAREF-Northfield

This study intends to find out how intrinsic religious orientation (R) may actually work as a moderating variable between neuroticism (N) and meaning in life (M) among college adolescent undergraduates. Meaning in Life Index (MIL; Francis & Hills, 2008), the items for neuroticism in The Eysenck Personality Questionnaire-Brief Version (EPQ-BV; Sato, 2005), and intrinsic religious orientation items from the New Indices of Religious Orientation (NIRO; Francis, 2007) were used to measure the constructs of neuroticism, meaning in life, and intrinsic religious orientation of 260 undergraduate students in a university in Manila. Past studies were confirmed about the relationship of neuroticism with sense of meaning in life and the association of intrinsic religious orientation with meaning in life. A very good fit was obtained with $\chi^2 = .00$, NFI=1.00, RFI=1.00, CFI= 1.00, and RMSEA= .00. The results of the path analysis show that neuroticism and the interaction of neuroticism and intrinsic religious orientation can negatively and significantly predict meaning in life; intrinsic religious orientation can positively predict one's sense of meaning in life.

Keywords: neuroticism, intrinsic religious orientation, meaning in life

Frankl (1959) indicated that man's meaning in life is found in transcending oneself, even to the point of forgetting himself and loving someone. Adler (1929) seemed to point that meaning in life is found when we avoid the useless side of life, among which are lack of sociableness and self-centeredness. Vitz (1996) argued that man's meaning in life lies in discovering the values that go beyond the material world, i.e., the spiritual realm. The Catechism of the Catholic Church mentions that God continues to attract man to himself, and that in nothing but God can one find the true happiness he is looking for (27, 21).

Aristotle's discussion of happiness in *The Nichomachean ethics* suggests that meaning in life is achieved through living a life of virtue and nobility. Socrates, Plato's guru, hinted in *The Apology of Socrates* that man will find meaning in life if he live the virtues, converse about them daily, and examine his life if he lives these virtues. It is thus true that "meaningful life" could mean several things, depending on whose theory one is explicating (Francis & Hills, 2008). However, despite the absence of one plain meaning of "meaning in life," theorists, as we have enumerated above, seem to agree that it has something to do with having a sense of fulfillment.

Neuroticism has been found to be a negative predictor of meaning and purpose in life (Francis & Hills, 2008; Schmutte & Ryff, 1996). On the other hand, intrinsic religious orientation, i.e., sincerely seeking and establishing an intimate relationship with God, has been found to be positively associated with meaning and purpose in life (Francis & Hills, 2008; Soderstrom & Wright, 1977). This suggests that people who try to make their religious convictions pervade their thinking and behaving tend to have a healthy sense of meaning and purpose in life (Soderstrom & Wright, 1977). As regards neuroticism and intrinsic religious orientations, studies show that these variables are uncorrelated (Francis, 2010; Maltby, 1999).

In the present study, neuroticism refers to the feelings of anxiety, anger, envy, guilt, and depressed mood; those who score high in neuroticism experience high levels of the feelings just mentioned (Matthews, Deary, & Whiteman, 2003). Intrinsic religious orientation refers to three religious characteristics: the ability to make one's religious faith pervade all the facets of one's life, public worship as a high priority commitment, and religious practices such as prayer and spiritual reading being carried out as ways of deepening one's relationship with God (Francis, 2007). Meaning in Life in this study refers to the attachment of certain personal values in the different events on one's life (Frankl, 1959). Thus, Frankl discovered the value of courage in his suffering in the concentration camp, and realizing this value being acquired gave meaning to his life (Frankl, 1959).

The question we wish to be answered in the present study, which, it seems, has not been answered yet in the past, is whether intrinsic religious orientation is capable of moderating the effect of neuroticism on meaning in life among Christian college undergraduates. Frankl (1959) noted that countless people suffer from existential frustration, a sense of a lack of meaning in life. While intrinsic religious orientation has shown that it has the potential to heighten the sense of meaning of individuals (Francis & Hills, 2008; Soderstrom & Wright, 1977), does it have the power to weaken the negative association between neuroticism and meaning in life among Christians undergraduates? Our hypothesis is that intrinsic religious orientation can weaken significantly the negative association between neuroticism and meaning in life among Christian college students. Specifically, we hypothesize that neuroticism has a stronger negative effect on the meaning in life when one's intrinsic religious orientation is low. In other words, we predict that given two adolescent neurotics with the same level of neuroticism, the one with a higher level of intrinsic religious orientation will have a higher sense of meaning in life. While intrinsic religious

orientation may be uncorrelated with neuroticism (Francis, 2010; Maltby, 1999), we theorize that the interaction of neuroticism and intrinsic religious orientation would not show independence from meaning in life. Neuroticism would continue to have a negative effect on meaning in life. However, intrinsic religious orientation would serve as a buffer that could effectively moderate the negative effect of neuroticism on meaning in life. If this hypothesis is proven plausible, then we could assist neurotic undergraduates by encouraging them to increase their intrinsic religious orientation, and thus, enjoy more sense of meaning in life.

Method

Participants

The participants in this study were undergraduate students from a university in Manila with the majority of the students coming from a high socio-economic status. They are taking up varied courses and from different year levels. Since this study is interested in identifying how the relationship of neuroticism and meaning in life may vary as a function of intrinsic Christian religious orientation, only students with Christian background were surveyed. Of the 260 undergraduates who participated in the survey, 132 were males, 127 were females, and 1 failed to identify his gender. Catholics were 209 while those who belong to Protestant sects were 51.

Sampling Procedure

The target population of the study are Filipino college undergraduate students. To obtain the sample, the researcher made use of non-probability sampling method, specifically, the convenience sampling. The researcher resorted to this method due to time constraint.

Sample Size and power

The number of participants was identified using the Slovin's formula for sample size. The number of population of the target group was estimated to be 20,000,000. This information was obtained from the data gathered by UNICEF and the National Statistical Coordination Board. UNICEF reported that there are approximately 20,000,000 adolescents in the Philippines.. Using the Slovin's formula with 6.2% margin of error, we obtain our sample n of 260.

The power was tested after the study was carried out and a high power of 1 was obtained. This means that the probability of erroneously not rejecting a false null hypothesis is very low.

Measures

Meaning in life. Meaning in life was measured using the Meaning in Life Index (MILI; Francis and Hills, 2008). This 9-item instrument was found to have a Cronbach's alpha of .88 and an inter-item correlation range of .18 to .70, with .47 as its mean (Francis & Hills, 2008).

Neuroticism. Neuroticism was measured using the neuroticism measures of the Eysenck Personality Questionnaire Brief Version (EPQ-BV; Sato, 2005). Sato (2005) reported that the neuroticism scale of EPQ-BV has a coefficient alpha of .90. The entire EPQ-BV was found to have a good test-retest reliability value of .92; when concurrent validity was carried out by correlating the neuroticism measures of EPQ-BV with the neuroticism measures of EPQR-S, good correlation (.88) was obtained (Sato, 2005).

Intrinsic religious orientation. Intrinsic religious orientation was measured using the intrinsic religious orientation measures of the New Indices of Religious Orientation (NIRO; Francis, 2007). NIRO was found to have an item rest alpha coefficients of .89 for its intrinsic religious orientation scale (Francis, 2007). When the items were correlated with its longer form, the correlation figure was .98 for intrinsic religious orientation (Francis, 2007). Concurrent validity of the scale was examined by comparing the results of the long form of NIRO with three more religious indices: self-assigned religiosity, church attendance, and personal prayer; students who think they are religious Christians had significant higher scores on the other three scales compared with students who think they are not religious persons (Francis, 2007).

Research Design

In ascertaining how intrinsic religious orientation moderates the effect of neuroticism on meaning in life, a path analysis was deemed appropriate. Neuroticism is the independent variable, intrinsic religious orientation is the moderator, and meaning in life is the dependent variable. In path analysis, as in multiple regression, the independent variable, the moderator, and the interaction of the independent variable and moderator are all considered independent variables. Taking into account that it may be recommendable to have the independent variable and the moderator to be uncorrelated, we are correlating the two in the design (Baron & Kenny, 1986).

Procedure

Data gathering was carried out in a university in Manila. Classrooms of undergraduates were visited and classes were interrupted to give way to the survey. Before the survey sheets were handed to the students, a one-minute talk was rendered to the students by the researcher. In the talk, he explicated a distinction between meaning in life and purpose in life. Meaning was related to the values a

person regards rather highly; hence, a meaningful life is a life being lived according to the values one esteems (Frankl, 1959). Purpose in life was simply explained as the direction one wants his life to take.

The great majority of the students finished the three scales on neuroticism, intrinsic religious orientation, and meaning in life, in about 5 minutes. Few finished close to 10 minutes.

Results

Descriptive Statistics

Table 1 shows the descriptive statistics for the different variables in the study. Centered values for neuroticism and intrinsic religious orientation were used in obtaining the product term for the independent variable and the moderator. This was deemed relevant since a high (0.8) correlation was obtained between neuroticism and the product term of neuroticism and intrinsic religious orientation. Thus, to avoid the effects of multicollinearity in regression, the centered values were used in the path analysis.

Correlation

Table 1 also gives the correlation matrix of all the variables in the study. The data in the correlation matrix confirm the results of past studies about the relationships of the variables. When neuroticism and meaning in life were correlated, significant but negative relationship was observed. Neuroticism and intrinsic religious orientation were uncorrelated. As in the past studies, meaning in life and intrinsic religious orientation is significantly and positively related.

Moderation Analysis

The main goal of the study was to test the hypothesis that the negative relationship of neuroticism and meaning in life can be weakened among Christian undergraduates when the level of intrinsic religious orientation is increased. This effect was tested by doing a path analysis using meaning in life as the dependent variable, neuroticism as the independent variable, and intrinsic religious orientation as the moderator. The independent variable and the moderator were centered to reduce the effects of multicollinearity in the study. One interaction term was generated by multiplying the neuroticism term with intrinsic religious orientation term.

As we can see in table 2, the result of the path analysis shows that the estimates for neuroticism, intrinsic religious orientation, and their product term, were all significant. The independent variable, the moderator, and the product term in this study are therefore significant predictors of meaning in life. A two-way interaction plot was constructed to analyze the effect of the moderator on the independent and dependent variables. The plot plainly shows the advantage of having

a higher intrinsic religious orientation within the context of the negative relationship between neuroticism and meaning in life. One way of making sense of the plot is to locate a point in the x-axis (neuroticism) and using this point, identify its level in the y-axis (meaning in life), for both low and high intrinsic religious orientation. The interaction plot can be seen in Figure 1. The model has an excellent fit ($\chi^2=.00$, NFI=1.00, RFI=1.00, CFI=1.00, RMSEA=.00)

Table 1

Summary of Intercorrelation, Means, and Standard Deviations for the Scores on Meaning in Life, Neuroticism, Intrinsic Religious Orientation, and the interaction term NXR

Measure	1	2	3	4	M	SD
1. Meaning in life	-				4.11	.51
2. Neuroticism	-.24*	-			2.68	.77
3. Intrinsic religious orientation	.43*	.06	-		3.77	.78
4. N X R	.02	.80*	.52*	-	10.07	.43

Note: Means and standard deviations of the variables are given above.

* $p < .05$

Table 2

Path Coefficients between Meaning in Life, Neuroticism, Intrinsic Religious Orientation, and the Interaction term of Neuroticism and Intrinsic Religious Orientation

	Neuroticism	Intrinsic religious orientation	N X IR
Meaning in life	-.15***	.26***	-.10*

Note: N=260. Centered values of the independent variable, the moderator, and their product term were used in this path analysis.

* $p < .05$ *** $p < .001$

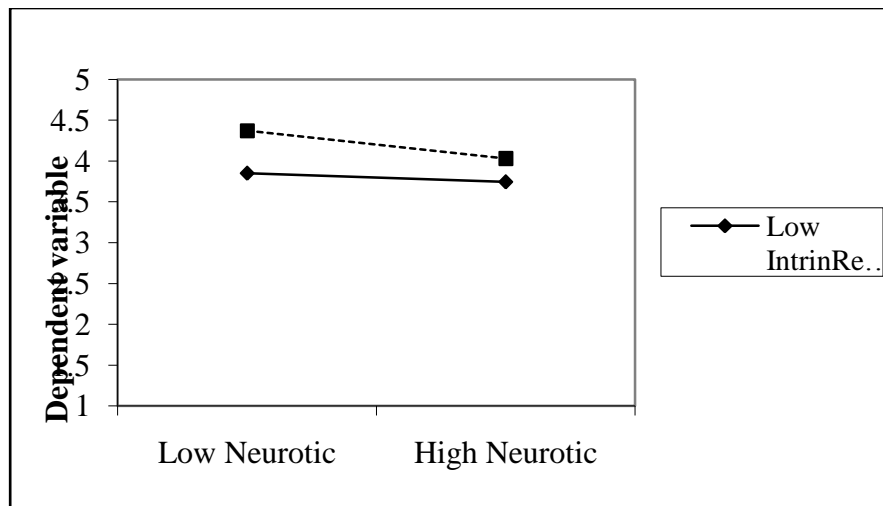


Figure 1. The graph shows the two-way interaction of neuroticism and intrinsic religious orientation.

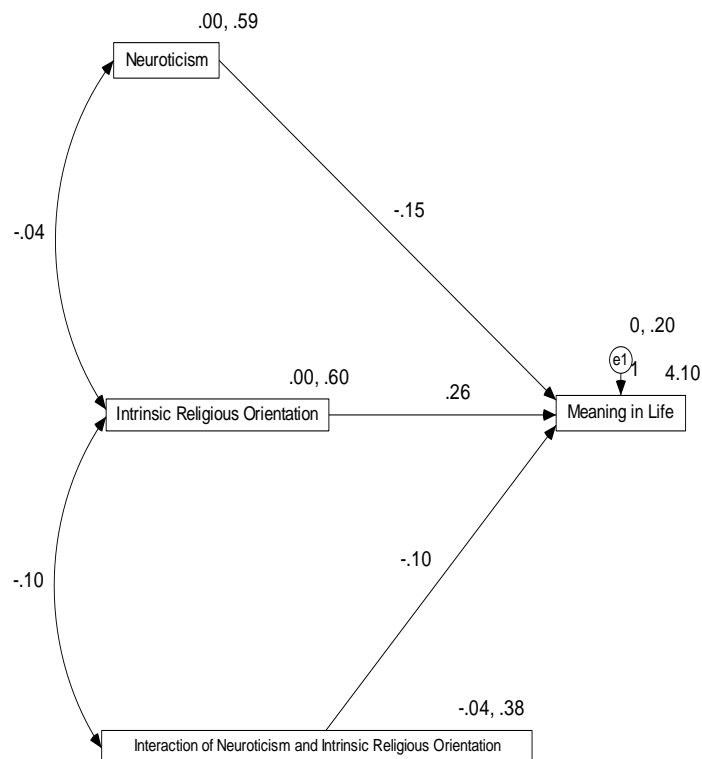


Figure 2. Path analysis model testing relationships among meaning in life, neuroticism, intrinsic religious orientation, and the product term of neuroticism and intrinsic religious orientation. Centered values were used in the path analysis.

Discussion

The results in the study point to the important role that intrinsic religious orientation play in helping undergraduate neurotics develop a more sense of meaning in life. Our hypothesis was confirmed by our results. Neuroticism has a stronger negative effect on meaning in life when intrinsic religious orientation is low. Our finding is especially relevant for Christian undergraduates suffering from high levels of neuroticism. These individuals, despite their neuroticism, could be helped to have better sense of meaning in life by affording them assistance in raising their intrinsic religious orientation. Moreover, recent studies suggest that people, young and old, are searching for meaning in life (O'Connell & Skevington, 2005; Dennis, Muller, Miller, & Banerjee, 2004). Although the studies just cited were carried out in other countries, if we relate those studies to our findings here, it seems not unreasonable to extrapolate that helping a Christian neurotic student of any nationality to boost his intrinsic religious orientation is helping him raise the level of his sense of meaning in life. Though intuition favors that analysis, further studies could be carried out to confirm our theory in this regard.

How the increase in intrinsic religious orientation actually functions in a Filipino Christian neurotic to bring up his sense of meaning in life is something, it seems, not yet explicated anywhere. We could theorize however that such an increase in meaning in life has something to do with finding meaning in suffering. Recent studies confirmed that people are looking for the meaning in their suffering (Ferch & Ramsey, 2003; Idler, 1995). A neurotic experiences suffering (Matthews, Deary, & Whiteman, 2003). If a Christian neurotic discovers that Christianity teaches Christians to make sense of their suffering by uniting their suffering to those of Christ, that suffering can be seen as a great good for the soul, and one may commence to realize that one's suffering can potentially be very meaningful. The Catechism of the Catholic Church states that "...he is consecrated to bear fruit by configuration to the Savior's redemptive Passion. Suffering, a consequence of original sin, acquires a new meaning; it becomes a participation in the saving work of Jesus" (1521, 356).

Intuition impels us to think then that if a Filipino Christian neurotic develops intrinsic religious orientation, his sense of meaning in life may rise up. We theorize here that for a Christian neurotic, making sense of his suffering through heightening one's intrinsic religious orientation, makes one's life highly meaningful. This is something that may be investigated in future research.

Our results too indicate that intrinsic religious orientation is compatible with any level of neuroticism. Thus, a person may have high, medium, or low intrinsic religious orientation regardless of the level of neuroticism he is suffering from. Such is not the case however for neuroticism and meaning in life. Just like in past studies, we found in the present study that neuroticism is negatively correlated with meaning in life. As the level of neuroticism of an individual surges, his sense of meaning in life diminishes, and vice versa.

The results we obtained also offers interesting insights about how the three variables may be influencing each other. If increasing the level of intrinsic religious

orientation may bring up the level of meaning in life in a Filipino Christian neurotic student, this stepping up of one's sense of meaning in life, likewise has the potential of bringing down the level of neuroticism since these two variables are negatively and significantly correlated. Although the neuroticism variable is considered in the present study as the independent variable, it may be plausible too that the two variables influence one another bidirectionally. A study suggested that meaning in life can predict one's level of neuroticism (Mascaro & Rosen, 2005). This may suggest that as we help a Christian neurotic student acquire meaning in life through the inculcation of intrinsic religious orientation, his neuroticism may diminish. The dynamics of this process could be the object of future studies.

References

- Abdel-Khalek, A. M. (2010). Religiosity, subjective well-being, and neuroticism. *Mental Health, Religion & Culture*, 13, 67-79.
- Aristotle. (1999). *Nicomachean ethics*. Retrived from <http://nicomacheanethics.net/>.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Caprara, G. V., Alessandri, G., Eisenberg, N., Kupfer, A., Steca, P., Caprara, M. G., Yamaguchi, S., Fukuzawa, A., & Abela, J. (2012, January 16). The Positivity Scale. *Psychological Assessment*. Advance online publication. doi: 10.1037/a0026681.
- Catechism of the Catholic Church*. (Definitive Edition). (1994). Intramuros, Manila: ECCCE/ Word & Life Publications.
- Dennis, D., Muller, S. M., Miller, K., & Banerjee, P. (2004). Spirituality among a college student cohort: A quantitative assessment. *American Journal of Health Education*, 35, 220-227.
- Ferch, S. R., & Ramsey, M. I. (2003). Sacred conversation: A spiritual response to unavoidable suffering. *Canadian Journal of Counselling*, 37, 16-27.
- Francis, L. J. (2007). Introducing the New Indices of Religious Orientation (NIRO): Conceptualization and measurement. *Mental Health, Religion & Culture*, 10, 585-602.
- Francis, L. (2010). Personality and religious orientation: Shifting sands or firm foundations? *Mental Health, Religion & Culture*, 13, 793-803.
- Francis, L. J., & Hills, P. R. (2008). The development of the Meaning in Life Index (MILI) and its relationship with personality and religious behaviours and beliefs among UK undergraduate students. *Mental Health, Religion & Culture*, 11(2), 211-220.
- Francis, L. J., Jewell, A., & Robbins, M. (2010). The relationship between religious orientation, personality, and purpose in life among an older Methodist sample. *Mental Health, Religion & Culture*, 13, 777-791.
- Frankl, V. E. (1959). *Man's Search for Meaning*. Boston, Massachusetts: Beacon Press.

- Idler, E. L. (1995). Religion, health, and nonphysical senses of self. *Social Forces*, 74, 683.
- Mascaro, N., & Rosen, D. H. (2005). Existential meaning's role in the enhancement of hope and prevention of depressive symptoms. *Journal of Personality*, 73. doi: 10.1111/j.1467-6494.2005.00336.x
- Maltby, J. (1999). Personality dimensions of religious orientation. *The Journal of Psychology*, 133, 631-640.
- Matthews, G., Deary, I. J., & Whiteman, M. C. (2003). *Personality Traits*. Cambridge: University Press, Cambridge.
- Millul, G. (2003). From hostility to coexistence through meaning: A possible reality in a multicultural world. *The International Forum for Logotherapy*, 26, 81-94.
- O'Connell, K. A., & Skevington, S. M. (2005). The relevance of spirituality, religion, and personal beliefs to health-related quality of life: Themes from focus groups in Britain. *British Journal of Health Psychology*, 10, 379-398.
- Plato. (2012). *The Apology of Socrates*. Retrieved from: http://archive.org/stream/theapologyofsocr00socruoft/theapologyofsocr00socruoft_djvu.txt.
- Ruch, W., Harzer, C., Proyer, R. T., Park, N., & Peterson, C. (2010). Ways to happiness in German-speaking countries The adaptation of the German version of the orientations to happiness questionnaire in paper-pencil and internet samples. *European Journal of Psychological Assessment*, 26(3), 227-234.
- Sato, T. (2005). The Eysenck Personality Questionnaire Brief Version: Factor structure and Reliability. *The Journal of Psychology*, 139, 545-552.
- Schmutte, P. S., & Ryff, C. D. (1996). Personality and well-being: Reexamining methods and meanings. *Journal of Personality and Social Psychology*, 73, 549-559.
- Soderstrom, D., & Wright, E. W. (1977). Religious orientation and meaning in life. *Journal of Clinical Psychology*, 33, 65-68.
- Steger, M. F., & Frazier, P. (2005). Meaning in life: One link in the chain from religiousness to well-being. *Journal of Counseling Psychology*, 52, 574-582.
- Steger, M. F., Shin, J. Y., Dik, B. J., Pickering, N. K., Adams, E., Burnett, J., & Stauner, N. (2010). The quest for meaning: Religious affiliation differences in the correlates of religious quest and search for meaning in life. *Psychology of Religion and Spirituality*, 2, 206-226.
- The spiritual life of college students. A National Study of College Students' Search for Meaning and Purpose*. (2003). Los Angeles, California: University of California, Los Angeles, Graduate School of Education & Information Studies.
- Unicef. (2012). *At a glance: Philippines*. Retrieved April 11, 2012, from http://www.unicef.org/infobycountry/philippines_statistics.html#96.
- Virola, R. A. (2010, June). Statistically Speaking. Retrieved from http://www.nscb.gov.ph/headlines/StatsSpeak/2010/061510_rav_joe.asp.
- Vitz, P. (1996). Back to human dignity: From modern to postmodern psychology. *The Intercollegiate Review*, 15-23

Author Note

William B. Ongsitco, Faculty Member, PAREF-Northfield, School for Boys
Correspondence concerning this article should be sent to William Ongsitco, PAREF-Northfield, Scout Gandia corner Scout Torillo, Barangay Sacred Heart, Quezon City.
Contact: wongsitco@gmail.com

Assessing and Further Exploring the Metacognitive Skills of Pre-service Teachers

Carlo Magno
*De La Salle University,
Manila*

This study made use of cluster analysis in order to explore new themes of metacognition in the areas of test-taking, reading proficiency, and mathematical problem-solving. The sample came from 55 pre-service teachers in universities around the National Capital Region of the Philippines. Results showed that 10 new themes emerged, excluding one previously mentioned by other studies. These themes of metacognition are planning, mental imagery, motor skills, visuals, selective learning, concretizing, finding relationships, rehearsal and repetition, comprehension-monitoring, social support and self-improvement. There were nine themes emerged from the planning for a test category, eight for reading a book, and eight for solving a mathematical problem. One unique theme, which is self-improvement, emerged in the mathematical problem-solving category.

Keywords: Metacognition, test-taking, reading proficiency, and mathematical problem-solving

Metacognition refers to understanding of an individual about his/her systematic thinking and his/her own learning process. According to Flavell (1979), “metacognition” is a students’ knowledge about and control over his or her own thinking process and learning activities. Furthermore, the thought of “metacognition” takes account of the thinking about the thinking process, self-awareness, understanding, memory techniques, and learning characteristics. Metacognitive strategies assist students to direct their attention, in an understanding of the subject matter, to link previous knowledge with new information and to code them in their memories (Paris & Jacobs, 1984). The endeavor of metacognitive strategies is to train students how to put objectives and how to be efficient and independent.

Metacognitive strategies are associated to how we think and learn (Ashman & Conway, 1993). Reviews on the strategies of metacognition include three similar skills: Planning, monitoring, and

evaluation (Cross & Paris, 1981). Ridley, Schutz, Glanz, and Weinstein (1992) distinguished that metacognition is composed of multiple skills that include taking conscious control of learning, planning, and selecting strategies, monitoring the progress of learning, correcting errors, analyzing the effectiveness of learning strategies, and changing learning behaviors and strategies.

Metacognition is generally defined from a western standpoint, there has been an attempt to investigate its nature and relevance in an Asian setting (Agler, Moore, & Zabrocky, 2009). In an effort to find if cultural factors influence metacognition, Taiwanese and Western students' metacomprehension and their ability to calibrate their reading performance were investigated. In connection with this, it has been shown that Asian students are more confident than western students in gauging how much they understand about general world knowledge (Agler, Moore, & Zabrocky, 2009). When it comes to knowledge about reading, it was found that Taiwanese college students are better than their Western counterparts in evaluating how they fared in a comprehension test and predicting their score in it (Agler, Moore, & Zabrocky, 2009).

In the aspect of metacognition and reading skills in the Asian context, a study revealed that the most used strategies were rereading, guessing, contextualizing, and visualizing (Atan, Ghafar, Hamdan, & Sihes, 2010). However, it was proposed that beyond these are more needed strategies such as differentiating facts from opinion, evaluating both sides of issue, and reflecting on the gist of the text. These were not too popular metacognitive skills among the Malaysian sample.

The fact that English is predominantly a second language in Asia has prodded researchers to find ways to seek for more metacognitive strategies that will improve the students' reading comprehension of English texts. Because second language learners are not able to attain proficient levels of reading without having solid proficiency in the language, Western students have an inherent leverage over Asian students in reading and more so, understanding English texts (Atan, Ghafar, Hamdan, & Sihes, 2010). This is supported by the idea that reading is a complex activity that requires not only cognitive but also perceptual and linguistic skills.

When it comes to reading a book or any reference, it is essential that before starting any reading assignment, students must be knowledgeable on how to develop and use their planning, monitoring and evaluation skills. It is of great importance to improve the questioning skills of students in the process of teaching (Hutt, 1997).

According to Blakey and Spence (1999), students have to ask themselves the following questions in order to be successful in reading comprehension: What is the main idea of reading text? How many supportive ideas are there in the reading text? How can supported details be explained? What kind of examples are given? Are the examples clear and understandable enough to enable me to understand the main idea? What are the important names, places and dates mentioned in the text? Do I need to read the text again? Should I check the dates, names, concepts, etc in the text again? Such questions will ensure that the students focus on the reading text.

By asking questions about the main idea of the text, its supporting details, crucial names and dates, students are able to direct their attention on understanding the text. Moreover, individuals who approach reading in a strategic manner by employing specific reading techniques are considered to be successful readers.

Because of these findings, it was proposed that students must be taught to “plan before any reading activity, how to prepare a monitoring plan during the reading activity and how to prepare an evaluation plan after the reading activity” (Senay, 2009).

Studies on metacognition and reading comprehension manifests strong relations concerning the use of strategies, awareness and reading comprehension. Successful readers are more attentive of premeditated reading and they probably use strategic reading techniques. The understanding and reading skills of students who are trained on metacognitive strategies improve (Garner, 1987). Awareness about reading strategies is an important cognitive gain.

Moreover, reading is the most fundamental tool for learning for students. Learning and implementing special reading strategies and specializing in the implementation of such strategies enable not only a more efficient use of time but also an easier and more sustained period of reading (Garner, 1987). Increasing brainpower at the time of reading is directly related to developing strategic reading skills. The student who is made aware that the thinking process requires the use of metacognitive strategies can develop strategic reading skills and think about the process of thinking.

Another study using a Singaporean sample delved into investigating metacognition’s relationship with everyday problem solving (Bergin, Lee, & Teo, 2009). It was hypothesized that six factors, three from each component of Metacognition namely knowledge of cognition and regulation of cognition will emerge as different ways by which problem solving is related to metacognition. Under knowledge of cognition are procedural, conditional, and declarative while under regulation of cognition are planning, monitoring, and evaluating. These six factors did not prove to be emerging constructs among the Singaporean students’ responses. However, it was established that Singaporean students clearly differentiated and practiced knowledge and regulation of cognition respectively (Bergin, Lee, & Teo, 2009). The gap in these studies would be the ways these components of metacognition are practiced specifically in problem solving. The researchers attributed the weak manifestation of the six factors in everyday problem solving among students to the claim that perhaps as individuals gain more content-specific knowledge over the time, the strategies employed to understand it also becomes more domain-specific. Because of this, a domain-general approach to metacognition does not relate clearly with a general concept like everyday problem-solving (Bergin, Lee, & Teo, 2009).

When it comes to problem solving, a person’s cognitive style can persuade his performance and attainment in learning (Riding & Pearson, 1994). The ease that an individual experience solving a problem also depends on the study strategy engaged. According to Leahey and Harris (1997), a problem happens when there is a gap that separates a person from his goal. Problem solving is present in several aspects of problem solving, from games to real life problems. Leitze and Melser (2005) said that if students were able to connect what they have learned inside the class with the events outside, they were able to maintain and appreciate information better. It was also highlighted that strategies such as cooperative learning, peer interaction and

evaluation, monitoring through questioning, and think aloud techniques were also used in developing mathematical problem solving (Dull & Schleifer, 2009).

The specific elements of metacognition in problem solving are said to be the identification of goals, organization of the points in a problem, progress-monitoring of arriving at the solution, recognition of barriers that may hinder progress, and the confrontation of these barriers (Dull & Schleifer, 2009). Students who were trained in metacognitive orientation exhibited better performance than students in a control group in match achievement, math reasoning, and metacognitive knowledge of problem solving (Dull & Schleifer, 2009).

When it comes to preparing for a test, the ability to monitor the helpfulness of one strategy versus another develops with age. Adults discern the utility of a strategy spontaneously by using the strategy and through experiences with tests, and they will use this information to regulate subsequent study selecting more effective strategies (Son & Metcalfe, 2000). Older children, although less accurate than adults, also monitor the utility of a particular strategy by using it and gaining feedback through tests, however, they fail to use this information to regulate study without explicit feedback regarding test performance. Young children do not appear to accurately monitor the utility of a strategy even when given an opportunity to monitor their test performance.

The capability to monitor learning during study (prior to test) also develops with age. Dufresne and Kobasigawa (1998) showed that children as young as third grade recognized that it was easier to learn related items (e. g., bat and ball) than unrelated items (e.g., frog and table), whereas first graders fail to monitor the difference between these items. This difference in monitoring accuracy influenced regulation of study. Older children chose to restudy the more difficult items, whereas younger children appeared to randomly select items for re-study.

In some cases, adults moderately accurately monitor their own learning (e. g., when monitoring associative learning after a delay). That is, in these situations, adults precisely distinguish better-learned material from less-learned material (Dufresne & Kobasigawa, 1998). However, in other cases, such as attempting to monitor comprehension of texts, even adult's monitoring accuracy is less than remarkable. Nonetheless, adults use this monitoring to guide subsequent study, typically opting to restudy material perceived as less well learned over material perceived as better learned. Moreover, monitoring accuracy is related to learning - higher accuracy is associated with greater test performance.

Aside from monitoring, planning, evaluating, and control over strategies are also essential tools in preparing for an exam. It was affirmed that college students who exhibited through planning, monitoring, evaluating, and control over strategies used while preparing and taking the exam garnered higher test scores than those who did not (Dull & Schleifer, 2009). This also suggests the importance of being aware of self-regulatory skills and practicing them with constancy in order to be better test-takers (Dull & Schleifer, 2009).

Following Bergin, Lee, and Teo's (2009) claim, it can now be inferred that metacognition among older students is better seen and explained in domain and content-specific areas. Despite having an ongoing debate if metacognition is general or domain-specific and what are the ways they are said to be so. Metacognition can

still be expressed or studied within a specific discipline, thereby intensifying what we know about its nature and operation in that discipline. There are still metacognitive strategies that remain distinct from the others (Dull & Schleifer, 2009).

Because of this, it is the researchers' aim to add to the previous Asian studies by highlighting domain-specific and culture-specific similarities and differences of metacognition by investigating the different metacognitive strategies Filipino college students employ in reading comprehension, test-taking, and mathematical problem solving. Moreover, the fundamental presence of these three areas in the course of one's learning add to the importance of investigating how a higher-order thinking skill such as metacognition is practiced by students in higher education.

The goal of this research is to determine specific metacognition strategies used by higher education students during problem solving, reading comprehension and taking a test. The themes that will come out can be compared to the type of metacognition used in previous studies. The present study determined whether the new themes that will emerge will converge with earlier findings.

Method

Participants

The participants were 55 pre-service teachers from different universities in the National Capital Region (NCR) in the Philippines. All participants are proficient in English and are from 16 to 21 years old taking a course related to psychology. Prior to answering the protocol, they already have taken a course that discussed metacognition.

Procedure

An open-ended protocol questionnaire composed of three items were administered to the respondents. The items were, "How do you prepare for an exam?", "What do you do in order to make sure that you understand what you are reading?", and "What are the steps you undergo in solving a math problem?" All responses were written in English and were answered under no time limit or class incentive. The three questions assessed the use of specific metacognition in the areas of taking a test, reading comprehension, and mathematics problem solving respectively.

Data Analysis

Following Creswell's (1998) cluster analysis, the answers in the form of short descriptions for each question were read. Afterwards, significant responses within each question were extracted and grouped according to its similarity of meaning. Once grouped into similar meanings, the responses were finally integrated under different themes.

Results

New themes of metacognition were generated that summarize the experience of using different skills in test-taking, reading proficiency, and solving a mathematical problem. Nine themes emerged from the test-taking category, eight for reading proficiency and eight for solving a mathematical problem.

Mental imagery, motor skills, selective learning, rehearsal and repetition are themes that manifested across all three categories.

Visuals, concretizing, and finding relationships emerged to be the similar between test-taking and reading proficiency while planning and social support are similar themes between test-taking and solving mathematical problems. Only the comprehension-monitoring theme appeared to be common between reading proficiency and mathematical ability. Lastly, self-improvement distinctly appeared in the mathematical ability.

Table 1
Similar Metacognitive themes across the three Academic Tasks

	Mathematics Problem Solving	Reading comprehension	Test-taking
Mathematics Problem Solving	---		
Reading comprehension	comprehension-monitoring	---	
Test-taking	planning and social support	Visuals, concretizing, and finding relationships	---

In preparing for an exam, while planning is a main component of regulation of cognition, it is interesting to note that it did come out as a students' strategy when reading a book. Moreover, planning has emerged as a strategy in solving a mathematics problem when students' follow the steps in outlining. Comprehension monitoring approach emerged to be similar for mathematics problem solving and reading comprehension. This method ensure one's understanding of a reading material for both literary and problem situations encountered.

For the other themes, mental imagery has been seen across the three different academic tasks. This theme establish the importance and frequency of using visual organizers whether it is to remember important concepts, understand a story better, or memorize math formulas. This is also enhanced by the students' strategy to develop their learning by resorting to visual clues by highlighting their handouts or texts.

Another way of making sure that all crucial concepts are stored in one's memory is through selective learning. Through this method, students take note of details among all the amassing information they are confronted with. Being aware of what to remember and of what to place importance on also reinforces one's ability to

make necessary connections to further one's learning. The ability to relate and bridge different knowledge gained also emerged as one of the dominant practices that students have.

Because motor skills can also be considered as one's deliberate performance of actions, it can be observed that students seem to imbibe the lessons when they engage in writing reviewers or taking down notes for themselves. When they continuously write about what they are learning, speed reading using their fingers, and practice solving mathematics problems, students also increase their familiarity with the given topic. This familiarity is further strengthened across the three tasks by strategies that foster rehearsal and repetition such as re-reading, re-writing, and re-solving.

Finding relationships also extends to creating or looking for links between academic knowledge and real life can also reinforce what has been rehearsed or repeated. It was found out that a metacognitive strategy used by students to regulate their cognition is concretizing or connecting what they learn in school with their experiences outside the academic setting.

Furthermore, there were also strategies that were not as explicit as those that were already mentioned and given emphasis in other studies. It was found out that social support and self-improvement were two concepts that students consider to be factors that govern regulation of cognition. While self-improvement maybe a constant mindset or reminder to pursue the three academic tasks, social support is more of an awareness that learning also flourishes when one has a partner, a group, or someone whom one can immediately seek assistance from.

Discussion

The purpose of this research is to compare the metacognitive themes that emerged in three academic tasks to previous studies that also explored the different themes of metacognition. The study intends to determine whether new themes will emerge and pinpoint which themes will remain consistent with use of cluster analysis.

It has already been established that metacognition involves managing one's cognitive skills. Through this study, the researchers were able to examine the different themes of metacognitive skills that college students employ in three different areas namely test-taking, reading proficiency, and solving mathematical problems.

Previous studies reported five dominant themes of metacognition namely planning, information management, monitoring, debugging and evaluating (Schraw & Denisson, 1994). However the present study aimed to explore other metacognitive skills that students employ and come up with more specific academic tasks. The present study was able to generate ten new themes that will hopefully enable educators to further understand the concept of metacognition.

Based on the cluster analysis, mental imagery, motor skills, selective learning, rehearsal and repetition are the themes that manifested across all three academic tasks. When each pair of categories were compared, visuals, concretizing, and finding relationships emerged to be the similar between test-taking and reading comprehension while planning and social support are similar themes between test-

taking and solving mathematical problems. Only the comprehension-monitoring theme appeared to be common between reading comprehension and mathematical ability. Self-improvement solely emerged in the mathematical ability category.

Both test-taking and reading comprehension tasks involve reading through text where the learner makes use of mental imagery in order to convey meaning. The individual thinks of concrete elaborations and finds relationship among ideas in order to fully understand the text.

Both test-taking and mathematical problem solving are common in finding the answer to a problem. Executing the answer is better facilitated when learners engage through careful planning and ask assistance from others (social support). Word problems are better solved when individuals accomplish the task in pair or in group (Briñol & DeMarree, 2012).

Learners use their reading comprehension in order to solve mathematical problems. Comprehension monitoring is needed in both tasks whether learners engage in reading a literary passage or reading word problems. Comprehension monitoring is needed to facilitate better performance in both tasks.

In relation to previous literature about the Asian perspective on metacognitive strategies, it has been claimed that Asians prefer re-reading, visualizing, and contextualizing (Atan, Ghafar, Hamdan, & Sihes, 2010). These strategies were in line with the current findings that repetition or rehearsal, mental imagery, and concretizing are some of the metacognitive skills that pre-service teachers utilize in order to better understand their reading assignments. With regards to test-taking and problem solving, self-monitoring is the main tactic that Asian students use. However, current results show that comprehension monitoring was only evident in both problem solving and test-taking.

Consistent with Shimamura's (2000) findings that monitoring one's learning is important when engaging in activities that require metacognitive skills and that selective attention and self-awareness do take place when people are confronted with metacognitive tasks. The present study was able to strengthen the idea that metacognitive skills do not only revolve around five categories as claimed by previous researchers. This implies that metacognition is a multidimensional construct and different metacognitive skills are dominant with specific academic tasks.

This present study only explored different strategic themes of metacognition, the next step is to verify how effective these strategies are and what role they play in the students' academic achievement. If these questions are answered through future research, then it will open a new perspective on how metacognition is utilized by students and what sets it apart from other cognitive strategies strategies.

In preparing for a test, reading a text, and solving a math problem, there were 11 main metacognitive processes by which students' strategies were classified under. Aside from Planning which was brought up by Schraw and Denisson (2010), there was the use of mental imagery, motor skills, visuals, selective learning, concretizing, finding relationships, rehearsal and repetition, comprehension monitoring, social support, and self-improvement. Out of these 11 processes, only one was task-specific. It was found out that respondents only engaged in comprehension-monitoring during reading activities. Given the clustering of strategies into different themes, this study explained the phenomena of regulating one's cognition in the context of three

important academic tasks that students face frequently. The assessment of metacognition can be further conducted by using more specific components for specific tasks. The assessment of metacognition should involve multiple criteria.

References

- Agler, L., Moore, D., & Zabrocky, K. (2010). Metacognition in Taiwan: students' calibration of comprehension and performance. *International Journal of Psychology*, 4, 305-312.
- Ashman, A., & Conway, R. (1993). *An Introduction to Cognitive Education Theory and Applications*. London: Routledge.
- Atan, S., Ghafar, M., Hamdan, A., & Sihes, A. (2010). The cognitive and metacognition reading strategies of foundation course students in teacher education institute in Malaysia. *European Journal of Social Sciences*, 2, 134-144.
- Bergin, D., Lee, C., & Teo, T. (2009). Children's use of metacognition in solving everyday problems: An initial study from an Asian context. *The Australian Educational Researcher*, 3, 89-102.
- Briñol, P., & DeMarree, K. (2012). *Social metacognition*. NY: Psychology Press.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.
- Dufresne, A., & Kobasigawa, A. (1989). Children's spontaneous allocation of study time: Differential and sufficient aspects. *Journal of Experimental Child Psychology*, 47, 274 - 296.
- Dull, R., & Schleifer, L. (2009). Metacognition and performance in the accounting classroom. *Issues in Accounting Education*, 3, 339 - 367.
- Garner, R. (1987). *Metacognition and reading comprehension*. Norwood, NJ: Ablex.
- Hutt, W. G. (1997). *Educational psychology interactive: Metacognition*. Retrieved from <http://teach.valdosta.edu/whuitt/col/cogsys/metacogn.html>.
- Leahey, T. H., & Harris, R. J. (1997). *Learning and cognition*. Prentice Hall: New Jersey.
- Leitze, A. R., & Melser, N. A. (2005). Multiculturalizing creative writing and mathematical problem solving. *Kappa Delta Pi Record*, 41, 87-91.
- Lodico, M. G., et al. (1983). The effects of strategy monitoring training on children's selection of effective memory strategies. *Journal of Experimental Child Psychology*, 35, 263 - 277.
- Myers, M., & Paris, S. G. (1978). Children's metacognitive knowledge about reading. *Journal of Educational Psychology*, 5, 680-690.
- Paris, S. G., & Jacobs, J. E. (1984). The benefits of informed instruction for children's reading awareness and comprehension skills. *Child Development*, 55, 2083-2093.
- Riding, R. J., & Pearson, S. (1994). The relationship between cognitive style and personality in further education students. *Personality and Individual Differences*, 23, 379-389.
- Ridley, D. S., Schults, P. A., Glanz, R. S., & Weinstein, C. E. (1992). Self-regulated learning: the interactive influences of metacognitive awareness and goals setting. *Journal of Experimental Education*, 60, 293-306.

- Senay, H. (2009). The relationship between the use of metacognitive strategies and reading comprehension. *Procedia Social and Behavioral Sciences*, 1, 2301-2305.
- Shimamura, A. P. (2000). What is metacognition? The brain knows. *The American Journal of Psychology*, 113(1), 142-146.
- Son, L. K., & Metcalfe, J. (2000). Metacognitive and control strategies in study-time allocation. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 26, 204-221.

Corpus-Based Grammatical Studies of Philippine English and Language Assessment: Issues and Perspectives

JooHyuk Lim
De La Salle University

Ariane Macalinga Borlongan
De La Salle University

This paper is organized as follows: First, it contextualizes the discussion within the landscape of Philippine English as a new English and as a field of study, with emphasis on endonormative stabilization of grammatical structures. Then, it will discuss the meta-synthesis of Borlongan and Lim (2012a) of corpus-based grammatical studies of Philippine English. Finally, directions to take towards a world Englishes paradigm-informed language assessment in the Philippines will be suggested.

Keywords: Grammatical Studies, language assessment

How the world Englishes paradigm impacts language assessment has been perplexing among scholars and stakeholders of various vested interests on the matter. While the issue remains controversial, most especially because language testing and assessment is one enterprise that is about accuracy, the apparent ‘dilemma’ that the world Englishes paradigm presents is that of accommodation of variety and, in effect, divergence. The present paper stands on a more dispassionate plane: How a sub-set of world Englishes studies - to be more specific, corpus-based grammatical studies of Philippine English - may influence the practice of language testing and assessing.

The Development and Present Status of Philippine English

Bolton and Bautista (2008) say, “the story of English in the Philippines is a compelling tale” (p. 2). The Americans brought and introduced English when they colonized the Philippines towards the end of 1800s. Actually, the first English teachers were the American soldiers that were posted in the

country that also served as English teachers, until the more qualified teachers, the Thomasites, arrived after three years. According to Gonzalez (1997, 2008), the number of American English teachers diminished significantly when Filipino teachers were already capable of teaching English, replacing most of the American teachers, and, when Filipinos started learning English from fellow Filipinos, Philippine English was born.

A publication by Llamzon came out in 1969, which was truly groundbreaking and which Bautista (2000) considered as “truly radical at that time” (p.6). In his publication, Llamzon claimed that “there is a standard variety of English which has arisen in the Philippines [and it] stands or falls short on the premise that there is a sizeable number of native and near-native speakers of English in the country” (p. 84). Hidalgo (1970) and Gonzalez (1972) questioned Llamzon’s claim that there exists a sizeable number of native or near-native speakers of English in the Philippines, because Filipinos are not native nor near-native speakers but mostly second language speakers of English. Bautista however presents evidences that supported the claim of Llamzon (1969): That there was already the existence of Philippine English and that it is a variety on its way to standardization. Bautista also strengthened her claims by proving how English has penetrated in various parts of the society and that it was already functionally-native to the Philippines. Thus, new definitions of a native speaker emerged - “[some]one who learns English in childhood and continues to use it as his dominant language and has reached a certain level of fluency in terms of grammatical well-formedness, speech-act rules, functional elaboration, and code diversity” (Richards & Tay, 1981, p. 53) and “someone, who was born and/or nurtured (to adolescence and/or beyond) in that language (possibly, in addition to other languages, in a multilingual context) in a relevant speech community/group, who can successfully use it for his/her daily sociocommunicational needs (and thought processes, therefore), and who possesses the (minimal) oral-aural skills (in the language)” (Mann, 1999, p. 15), a sizable number of Filipinos would definitely qualify as native speakers of English. Hence, she remarked that, “30 years after Llamzon proclaimed the existence of a Standard Filipino English, such a claim now has a basis in reality” (p. 17).

Schneider (2007) considers the Philippines to be in endonormative stabilization - phase 4. The case of the transplantation of English in the Philippines he describes this way: “Signs foreshadowing codification in phase 4 can be detected, though they remain highly restricted” (p. 143). However, very recently, Borlongan (2011c) makes a claim that Philippine English already reached endonormative stabilization - phase 4. He says that Event X - a requisite to endonormative stabilization - has already taken place. He considers as Event X the ratification and implementation of the Tydings Rehabilitation Act of 1946 and Bell Trade Relations Act of 1946, which were seen as somehow unfair to the Philippines, as their primary goal was to serve as an aid during the post-war rehabilitation but were not completely as such. Borlongan also points to what he calls post-Event X incidents, such as the rejection of the 1947 Military Bases Agreement, which drew American military bases out of the

Philippines by 1992 and the pull out of the Philippine troops that were originally sent to support the American-led coalition forces in Iraq. Aside from these, after the independence from the Americans, the Philippines has been able to self-govern and formulate its own language policies internally. Consequently, emerging local norms have been generally more acceptable and English has become widely in literature. And thus, Philippine English has shown some signs of phonological and grammatical stabilization. Furthermore, Philippine English has grown to a level of homogeneity and dictionaries and reference grammars provide (initial) codification. Hence, Philippine English is not so far away, if not, already in the endonormative stabilization - phase 4 in Schneider's (2003, 2007) dynamic model of the evolution of postcolonial Englishes, Borlongan asserts.

Corpus-Based Grammatical Studies of Philippine English

A foreign scholar once remarked, "of the Southeast Asian countries, the Philippines has perhaps produced the most comprehensive research on an indigenised variety of English" (Tay, 1991, p. 323). However, it is the availability of a Philippine English corpus in the form of the Philippine component of the International Corpus of English (ICE-PH) that paved the way to the advancement of the linguistic description of Philippine English, to a more empirical and quantitative approach that corpus-based linguistics can offer. ICE-PH was compiled at De La Salle University in Manila, the Philippines by a team headed by Ma. Lourdes Bautista, started in the early 1990s and completed in mid-2000s. ICE-PH is composed of about one million words distributed almost evenly across 500 texts with specified categories; therefore, there are approximately 2000 words per text with some being composite to reach the 2000-word minimum. Also, the texts were sampled from the English spoken or written by adults aged 18 and above and who received formal education through the medium of English up to the postsecondary level. The texts are divided into spoken and written texts, the major text categories. All in all, the texts include private and public dialogues, unscripted and scripted monologues, and non-printed and printed written materials. Bautista however made no claim with regard to the representativeness of the data but said the corpus can still be a solid basis for future studies.

To date, at least around 50 studies would have been made with ICE-PH serving as dataset. These studies have been reported in various forms - journal articles, papers in edited volumes (including one solely devoted to ICE-PH studies [Bautista, 2011b]), monographs, and theses and dissertations. Borlongan and Lim (2012a) systematically summarize in a meta-synthesis the findings of corpus-based studies of Philippine English that have seen publication¹. The studies they have included are in Table 1, a listing that seems

¹ Borlongan and Lim (2012b) also reviewed corpus-based studies of Philippine English specifically made at De La Salle University. The university has pioneered corpus-based

to be necessarily indicated in this paper as a way to demonstrating which grammatical aspects have been explored thus far:

Table 1

Studies included in Borlongan and Lim's (2012a) meta-synthesis

Study (Scholar, year of publication)	Grammatical aspect explored
Bautista, 2000a	Subject-verb concord, tense and aspect, articles, prepositions
Pauwels & Winter, 2004	Generic pronouns and gender-inclusive language
Schneider, 2004	Particle verbs
Nelson, 2005	Expression of future time
Schneider, 2005	Subjunctive mood
Hundt, 2006	Concord patterns in collective nouns, <i>One of the</i> + singular noun, <i>Ømajority</i> , <i>such</i> + <i>Ø</i> singular noun, <i>assure</i> + <i>Ø</i> indirect object, <i>wherein</i>
Bautista, 2008	Tag questions
Borlongan, 2008	Progressive aspect
Collins 2008	Modals and quasi-modals
Collins, 2009	GET-passives
Alonsagay & Nolasco, 2010	Mandative subjunctive, modals of obligation and necessity, HAVE-negation
Bautista, 2010a	Subjunctive mood, case marking of <i>wh</i> -pronouns, indefinite compound pronouns in <i>-body</i> and <i>-one</i>
Bautista, 2010b	Pragmatic particle ' <i>no</i> '
Bautista, 2011a	Irregular verbs, comparison of adjectives, <i>s</i> -genitive
Borlongan, 2011	Concord in existential <i>there</i> -constructions
Collins, 2011	Intensifiers
Coronel, 2011	Adverbial disjuncts
Dita, 2011	Modal auxiliaries
Gustilo, 2011	Tagalog particles
Lim & Borlongan, 2011	'Grammatical keywords'
Nelson & Hongtao, 2011	Subjunctive mood
Schneider, 2011	

And Borlongan and Lim (2012a) point to the following with regard to Philippine English grammar:

- Philippine English has been initially described as being linguistically conservative as seen in its stylistic homogeneity across different genres

work on Philippine English, rather quite expectedly, because of its being the 'home' of ICE-PH as well as Borlongan's Philippine parallel to Brown University Standard Corpus of Present-Day Edited American English.

of speech and writing and it has been argued that it does not have a distinct stylistic differentiation between speech and writing (Alberca, 1978; Gonzalez & Alberca, 1978; Gonzalez, 1982, 1983, 1985, 1991). However, Borlongan and Lim's meta-synthesis has made a case for Philippine English; that, in fact, it manifests differentiation among and between genres. These differentiations are in the grammatical categories of aspect, modals and quasi-modals, voice, *wh*-pronouns, indefinite compound pronouns, gender-inclusive pronouns, adverbial disjuncts, relative clauses, and tag questions. This is not to say that stylistic underdifferentiation was not evident. It is, but in much fewer grammatical categories (as compared to the number of grammatical categories where differentiation has been observed) such as subjunctive mood and collective noun concord across genres.

- Philippine English, having American English as its parent, draws out some foreseeable structural development regarding its linguistic structures that would most likely follow the footsteps of its parent English. But despite the continuous influence of American English, Philippine English still manages to develop, to the point of even showing some clear signs of linguistic independence and, therefore, quite possibly, it is moving towards endonormative stabilization. Some grammatical aspects such as subjunctive, regularization of irregular verb morphology, and concord in relation to collective nouns and *there*-existentials still have traces of influence from the parent, but Philippine English has not been faithful to its parent in the grammatical aspects of the progressive, modals and quasi-modals, *s*-genitive, *wh*-pronouns, and indefinite compound pronouns.
- Philippine English certainly has come up with its own distinctive patterns of use in some grammatical aspects (i.e. the subjunctive and concord in relation to collective nouns and *there*-existentials). Although Philippine English still does follow some of the norms of its parent, in some aspects, Philippine English might even be more advanced than American English (i.e. regularization of irregular verb morphology, *s*-genitives, *wh*-pronouns, and indefinite compound pronouns). Looking at specific aspects (the progressives and modals and quasi-modals) has shown a thorough difference in patterning; thus, they have taken different paths of development.
- Philippine English has as its closest affinity American English due to its lineage, but Singapore English is next in line due to, probably, the similar contextual and developmental dynamics. This status of closeness, however, is not constant; which means, it is not always the case that American English will always be the closest and Singapore English the next. Thus, there are other Englishes with which Philippine English shows similar patterning and they are Hong Kong English, New Zealand English,

and British English. Therefore, Philippine English is a lot more flexible and not just a fixed English. And so, although it is expected that Philippine English is closest to its parent, it might not always be the case.

- In the dynamic model of the evolution of postcolonial Englishes, Philippine English was initially positioned in phase 3 - nativization (Schneider, 2003, 2007). However, a recent attempt by Borlongan (2011b) to relocate Philippine English to endonormative stabilization - phase 4 has been supported with various sociolinguistic evidences for the proposed relocation. And concurrently, fundamental linguistic and structural effects are also seen to be manifesting in Philippine English.

But the most important feat of Borlongan and Lim's (2012a) meta-synthesis is its showing of clear evidences of internal norms, which are stabilizing, and its pointing out of an emerging local standard. Thus, there exist marked differentiation in the use of grammatical structures across different genres of speech and writing and independent linguistic choices, i.e. not following the patterns of its parent but still similar with its parent in many ways.

There are some other corpus-based work on Philippine English worth the mention here but was not included in the Borlongan and Lim (2012a) (because they do not meet their selection criteria which is that the study must already be in published form): The pioneering corpus-based grammar of the Philippine English verb system of Borlongan (2011a) and the diachronic studies of Philippine English (Borlongan, Lim, Collins, & Yao, 2012; Collins, Borlongan, & Yao, in press for 2013; Collins, Yao, & Borlongan, 2012) which were made possible with the availability of the Philippine parallel to Brown University Standard Corpus of Present-Day Edited American English (more commonly known as the Brown corpus, and so the Philippine parallel is genially called 'Phil-Brown'), the compilation of which was directed by Ariane Borlongan of De La Salle University. These works nonetheless all lend support to what Borlongan and Lim (2012a) have said of Philippine English.

Towards a World Englishes Paradigm-Informed Language Assessment: Problems and Prospects

Ample description of Philippine English grammar have been made available through the compendium of corpus-based grammatical studies of Philippine English. Corpus-based reference works (e.g. Borlongan, 2011a) are also being prepared, and hopefully a much more comprehensive grammatical description of Philippine English will be ready soon. These are valuable resources, among others, in informing language assessment of the world Englishes paradigm, of the variation that should be recognized as acceptable, and not labelled as learner errors. Standardized tests are fairly institutionalized mechanisms, and may be hard to commit to transitional

change. Also, comprehensive paradigm shifts in the construction and implementation of these standardized tests require access to a readily available grammar. This notwithstanding, the reality that remains is that these standardized tests (which are Anglo-American-based) are given high recognition and validity for the various purposes it may serve. And therefore, how the results of these tests are valued and used as a means to discriminate persons in general and students in particular must be reconsidered.

Within the present realities, it is almost impossible to instigate institutional change and comprehensive paradigm shift. The perennial problem of the Philippine educational system is lack of resources, most especially financial resources, and this delays innovation. Putting up standardized tests that conform to the conviction of the world Englishes paradigm requires comprehensive linguistic descriptions of Philippine English. A grammatical description of just one grammatical category (i.e. Borlongan's [2011a] verb grammar) will not be able to warrant paradigm shift. Though efforts leading to more grammatical descriptions are in progress (e.g. Carissa Anna Cariño and JooHyuk Lim of De La Salle University are working on adjectives and prepositions respectively), a concrete and tangible reference work must be in place. Of course, introducing variance in these standardized tests remains an issue and more complex psychometric techniques must be used to be able to assess users of Philippine English (cf. Davidson, 2005).

In the interim, what can be done should be done: Teachers in service must be informed of this emerging, liberating paradigm. They must be made aware that English is not a monolithic entity, and the norms have become pluricentric. These should first and foremost be reflected in their teaching philosophies, and then translated into action: Teachers should start teaching Philippine English, not necessarily as the target variety but simply to increase awareness on the existence of such a legitimized new English, thereby also helping students improve their sociolinguistic competence. Classroom evaluation schemes must reflect this reinvigorated philosophy and enhanced content. This can be easily applied in less objective assessment tools like essays and research papers, which should be common in English language classes. Teachers must point in class how Philippine English textual patterns may differ from other Englishes and must instruct their students to be aware of how these differences and variations may be used appropriately. The findings of corpus-based studies of Philippine English with reference to internal stylistic variation may help in pointing out when Philippine English discriminates between the use of the subjunctive mood, for example, and so the teacher must try to make the most out of this kind of resource. Given this, teachers must likewise rate submissions without judging those works that make use of Philippine English patterns as inferior.

But like standardized tests, classroom objective-type tests will continue to conform to the exonormative standard as long as high-stake standardized tests also remain to be Anglo-American-based. That these classroom tests will favor an exonormative standard at present - until such a time when Philippine English standardized tests are available - is understandable because these tests

are usually taken as preparations for high-stake standardized tests. However, in light of the world Englishes paradigm, teachers should also make mention how some answers which are categorically right may be variably optional (cf. Bautista, 2000, 2004 on categorical/invariable and variable rules in Philippine English). Teachers should take advantage of post-test implementation discussions as teaching and learning moments when students can be made to realize how grammatical variation exists across Englishes, and it is also at these moments when corpus-based findings become invaluable.

While, as mentioned earlier, standardized tests are the most difficult to change, in relation to a world Englishes-informed language assessment, efforts should remain unrelenting as to the development of standardized tests that accurately measure language proficiency and competence, and this kind of proficiency and competence must include sensitivity to the reality of the existence of a local English, which is legitimate and not that that falls short of American or British English. It is at this stage of reenvisioning a more world Englishes-informed language assessment that findings of corpus-based studies will be most important and truly necessary.

The task of putting up a world Englishes paradigm-informed language assessment in the Philippines is a difficult one. Borlongan (2010a, 2010b) it is difficult to introduce an innovation in English language teaching in the Philippines, primarily because there is no system for managing innovations in English language teaching in the Philippines. However, sacrifices must be done as to as develop English language teaching in the Philippines and the development of Philippine English as a legitimate English (Borlongan, 2011b).

Concluding Remarks

Because ultimately, the most important is that Philippine English progresses in its development. Borlongan (2011d, p. 196) ardently says:

PhilE [Philippine English] does follow AmE [American English], undeniably a child of its parent. But like a typical child of any parent, it has a life of its own, too. One sees traits inherited from the parent ('nature') but, likewise, it manifests traits resulting from developmental and contextual dynamics ('nurture').

However, a pre-requisite to its further development, no matter how difficult it may be, is the construction of valid and reliable assessment techniques for English language teaching in the Philippines, techniques that are sensitive to the sociolinguistic reality of a localized English. Hence, it is important that stakeholders of English language teaching in the Philippines and scholars working within the world Englishes paradigm look into this issue more closely.

References

- Alonsagay, I., & Nolasco, J. (2010). Adversativity and the GET-Passive in Philippine English and British English: A corpus-based contrastive study. *Philippine Journal of Linguistics*, 41, 1-13.
- Alberca, W. L. (1978). *The distinctive features of Philippine English in the mass media* (Unpublished doctoral dissertation). University of Santo Tomas, Manila, the Philippines.
- Bautista, M. L. S. (2000). *Defining Standard Philippine English: Its status and grammatical features*. Manila, the Philippines: De La Salle University Press, Inc.
- Bautista, M. L. S. (2003). The new Englishes and the teaching of grammar. In J. E. James (Ed.), *Grammar in the language classroom: Changing approaches and practices* (pp. 62-90). Singapore: SEAMEO Regional Language Centre.
- Bautista, M. L. S. (2008). Investigating the grammatical features of Philippine English. In M. L. S. Bautista & K. Bolton (Eds.), *Philippine English: Linguistic and literary perspectives* (pp. 201-218). Hong Kong, China: Hong Kong University Press.
- Bautista, M. L. S. (2010a). Comparing spoken and written text-types in Singapore English and Philippine English. In D. J. Y. Bayot (Ed.), *Inter/Sections: Isagani Cruz and friends* (pp. 175-200). Manila, the Philippines: Anvil Publishing, Inc. for De La Salle University.
- Bautista, M. L. S. (2010b). Exemplary analyses of the Philippine English corpus. In L. Billings & N. Goudswaard (Eds.), *Piakandatu ami Dr. Howard P. McKaughan* [In honor of Dr. Howard P. McKaughan] (pp. 5-23). Manila, the Philippines: Linguistic Society of the Philippines.
- Bautista, M. L. S. (2011a). Some notes on 'no in Philippine English. In M. L. S. Bautista (Ed.), *Studies on Philippine English: Exploring the Philippine component of the International Corpus of English* (pp. 75-89). Manila, the Philippines: Anvil Publishing, Inc. for De La Salle University.
- Bautista, M. L. S. (Ed.). (2011b). *Studies on Philippine English: Exploring the Philippine component of the International Corpus of English*. Manila, the Philippines: Anvil Publishing, Inc. for De La Salle University.
- Bolton, K., & Bautista, M. L. S. (2008). Introduction. In M. L. S. Bautista & K. Bolton (Eds.), *Philippine English: Linguistic and literary perspectives* (pp. 1-9). Hong Kong, China: Hong Kong University Press.
- Borlongan, A. M. (2008). Tag questions in Philippine English. *Philippine Journal of Linguistics*, 39, 109-133.
- Borlongan, A. M. (2010a). *The management of English language teaching in the Philippines* (Unpublished Research Fellowship project). SEAMEO Regional Language Centre, Singapore.
- Borlongan, A. M. (2010b). On the management of innovations in English language teaching in the Philippines [Editorial commentary]. *TESOL Journal*, 2, 1-3.

- Borlongan, A. M. (2011a). *A grammar of the verb in Philippine English* (Unpublished doctoral dissertation). De La Salle University, Manila, the Philippines.
- Borlongan, A. M. (2011b). The preparation and writing of a grammar of the verb in Philippine English [Editorial commentary]. *The Philippine ESL Journal*, 7, 120-123.
- Borlongan, A. M. (2011c). *Relocating Philippine English in Schneider's dynamic model*. Paper presented at the 17th Annual Conference of the International Association for World Englishes, November 23-25, 2011, Melbourne, Australia.
- Borlongan, A. M. (2011d). Some aspects of the morphosyntax of Philippine English. In M. L. S. Bautista (Ed.), *Studies on Philippine English: Exploring the Philippine component of the International Corpus of English* (pp. 187-199). Manila, the Philippines: Anvil Publishing, Inc. for De La Salle University.
- Borlongan, A. M., & Lim, J. (2012a). *Distinctive grammatical features of Philippine English: A meta-synthesis of corpus-based studies*. Poster presented at the 33rd International Computer Archive of Modern and Medieval English (ICAME) Conference, May 30-June 3, 2012, Louvain, Belgium.
- Borlongan, A. M., & Lim, J. (2012b). *English corpus linguistics at De La Salle University: Remembering the past, living the present, and creating the future*. Paper presented at the Research @ DLSU [De La Salle University] Congress 2012, February 15-16, 2012, Manila, the Philippines.
- Borlongan, A. M., Lim, J., Collins, P., & Yao, X. (2012). *The subjunctive mood in Philippine English: A diachronic analysis*. Paper presented at the 17th International Conference on English Historical Linguistics, August 20-25, 2012, Zurich, Switzerland.
- Coronel, L. M. (2011). Patterns of intensifier usage in Philippine English. In M. L. S. Bautista (Ed.), *Studies on Philippine English: Exploring the Philippine component of the International Corpus of English* (pp. 93-116). Manila, the Philippines: Anvil Publishing, Inc. for De La Salle University.
- Collins, P. (2008). The progressive in world Englishes: A corpus-based study. *Australian Journal of Linguistics*, 28, 224-249.
- Collins, P., Borlongan, A. M., & Yao, X. (in press for 2012). *Modality in Philippine English: A diachronic study*. *Journal of English Linguistics*.
- Collins, P. (2011). Variable agreement in the existential there-construction in Philippine English. In M. L. S. Bautista (Ed.), *Studies on Philippine English: Exploring the Philippine component of the International Corpus of English* (pp. 175-186). Manila, the Philippines: Anvil Publishing, Inc. for De La Salle University.
- Collins, P., Yao, X., & Borlongan, A. M. (2012). *Relative clauses in Philippine English: A diachronic perspective*. Paper presented at the 31st International Computer Archive of Modern and Medieval English (ICAME) Conference, May 30-June 3, 2012, Louvain, Belgium.

- Dita, S. N. (2011). The grammar and semantics of adverbial disjuncts in Philippine English. In M. L. S. Bautista (Ed.), *Studies on Philippine English: Exploring the Philippine component of the International Corpus of English* (pp. 33-50). Manila, the Philippines: Anvil Publishing, Inc. for De La Salle University.
- Gonzalez, A. (1972). Review of Teodoro A. Llamzon's *Standard Filipino English*. *Philippine Journal of Language Teaching*, 7(1-2), 93-98.
- Gonzalez, A. (1982). English in the Philippine mass media. In J. B. Pride (Ed.), *New Englishes* (pp. 211-226). Rowley, MA: Newbury House Publishers, Inc., pp. 211-26.
- Gonzalez, A. (1983). On English in Philippine literature in English. *Solidarity*, 3(96), 29-42.
- Gonzalez, A. (1985). *Studies on Philippine English*. Singapore: SEAMEO Regional Language Centre.
- Gonzalez, A. (1991). Stylistic shifts in the English of Philippine print media. In J. Cheshire (Ed.), *English around the world: Sociolinguistic perspectives* (pp. 333-363). Cambridge, the United Kingdom: Cambridge University Press.
- Gonzalez, A. (1997). The history of English in the Philippines. In M. L. S. Bautista (Ed.), *English is an Asian language: The Philippine context - Proceedings of the conference held in Manila on August 2-3, 1996* (pp. 25-40). North Ryde, Australia: The Macquarie Library Pty Ltd.
- Gonzalez, A. (2008). A favorable soil and climate: A transplanted language and literature. In M. L. S. Bautista & Kingsley Bolton (Eds.), *Philippine English: Linguistic and literary perspectives* (pp. 13-27). Hong Kong, China: Hong Kong University Press.
- Gustilo, L. E. (2011). Modal auxiliaries in Philippine English newspapers: A corpus-based analysis. *Philippine ESL Journal*, 6, 81-109.
- Hidalgo, C. A. (1970). Review of Teodoro A. Llamzon's *Standard Filipino English*. *Philippine Journal of Linguistics*, 1(1), 129-132.
- Llamzon, T. A. (1969). *Standard Filipino English*. Manila, the Philippines: Ateneo University Press.
- Lim, J., & Borlongan, A. M. (2011). Tagalog particles in Philippine English: The cases of *ba*, *na*, 'no', and *pa*. *Philippine Journal of Linguistics*, 42, 58-74.
- Mann, C. C. (1999). *We wuz robbed inni'*: Towards redefining the 'native speaker'. Paper presented at the 12th World Congress of the International Association of Applied Linguistics, August 1-6, 1999, Tokyo, Japan.
- Nelson, G. (2005). Expressing future time in Philippine English. In D. T. Dayag & J. S. Quakenbush (Eds.), *Linguistics and language education in the Philippines and beyond: A festschrift in honor of Ma. Lourdes S. Bautista* (pp. 41-59). Manila, the Philippines: Linguistic Society of the Philippines.
- Nelson, G., & Hongtao, R. (2011). Philippine English, among others: An exploration of grammatical 'keywords' in the ICE-Philippines corpus. In M. L. S. Bautista (Ed.), *Studies on Philippine English: Exploring the Philippine component of the International Corpus of English* (pp. 201-

- 222). Manila, the Philippines: Anvil Publishing, Inc. for De La Salle University.
- Richards, J. C., & Tay, Mary W. J. (1981). Norm and variability in language use and language learning. In L. E. Smith (Ed.), *English for cross-cultural communication* (pp. 40-56). London, the United Kingdom: Macmillan.
- Schneider, E. W. (2003). The dynamics of new Englishes: From identity construction to dialect birth. *Language*, 79, 233-281.
- Schneider, E. W. (2004). How to trace structural nativization: Particle verbs in world Englishes. *World Englishes*, 23, 227-249.
- Schneider, E. W. (2005). The subjunctive in Philippine English. In D. T. Dayag & J. S. Quakenbush (Eds.), *Linguistics and language education in the Philippines and beyond: A festschrift in honor of Ma. Lourdes S. Bautista* (pp. 27-40). Manila, the Philippines: Linguistic Society of the Philippines.
- Schneider, E. W. (2007). *Postcolonial English: Varieties of English around the world*. New York, NY: Cambridge University Press.
- Schneider, E. W. (2011). The subjunctive in Philippine English: An updated assessment. In M. L. S. Bautista (Ed.), *Studies on Philippine English: Exploring the Philippine component of the International Corpus of English* (pp. 159-173). Manila, the Philippines: Anvil Publishing, Inc. for De La Salle University.
- Tay, M. W. J. (1991). Southeast Asia and Hong Kong. In J. Cheshire (Ed.), *English around the world: Sociolinguistic perspectives* (pp. 319-332). Cambridge, the United Kingdom: Cambridge University Press.

Assessing High School Students Action Control, Student Participation, and School Ability

Carlo Magno
De La Salle University,
Manila

The study determined the relationship of action control and high school student's participation with high and low school ability. The participants are fourth year high school students (Year 10, 16-17 years old) with high ($N=114$) and low ($N=114$) school abilities that are studying in a private school in Manila, Philippines. The teachers of the students were requested to use the Student Participation Questionnaire (SPQ) to rate the behavior of their students using the subscales effort, initiative, inattentive, and disruptive. The students then answered the Action Control Scale (ACS). The scores in the SPQ and ACS were correlated. Two sets of correlations were conducted: One for the high ability group and another for the low ability group. The Otis Lenon School Ability Test (OLSAT) was used to determine whether the students belong in a high or low ability group. The results of the study showed that there is a difference in the pattern of relationship between the high and low ability groups: Negative relationships were observed for the action orientations with disruption and inattention for the high group, but this correlation is positive for the low group.

Keywords: Action control, student participation, school ability

Students show different kinds of behavior when inside the classroom that is reflective of their academic performance. Previous studies showed that different types of behavior that students manifest while inside the classroom can either increase or decrease their academic performance. For example, in a study done by Finn, Panozzo, and Voelkl (1995), the four types of student behavior, namely disruptive, inattentive, effort and initiative is related to student's academic performance. However, the behaviors such as showing initiative and effort will depend on students' controllability over their actions (Kuhl, 1994). There are several studies showing that one's controllability of actions increases with performance (Perry et al., 2001). This controllability over one's behavior is termed as

action control. Action control is an individual difference factor described as the persistence of one's goals and the ability to protect goals through the use of different mechanisms and techniques (Diefendorff, Hall, Lord, & Stream, 2001). The relationship between participation and action control will depend whether individuals have the ability to use control effectively. Using effective control strategies depends on the extent of student's ability. In the present study, it is hypothesized that the relationship of action control and effort and initiative is stronger with students with high abilities as compared to student with low abilities.

Student's ability is used as a variable that differentiates the link between the relationship of action control and student participation. Previous studies commonly use ability measures as a predictor in determining the student's behavior and performance (Schmitt et al., 2007). It is already established in past studies that results of student ability tests are used to predict the potential of students in relation to their leadership, interpersonal, and ethics (Schmitt et al., 2007). In the present study, the researchers will use student ability to differentiate link of action control and student participation because ability can be an effective condition to explain better the relationship of controllability and student behavior. The present study focused on the relationship of student participation and action control. It would clarify whether the behavior presented by the student is actually linked by their mental abilities.

Action Control

Kuhl's Action Control theory pertains to the processes that enable individuals to perform their intentions or goals despite the presence of competing actions tendencies (Kuhl, 1994). It also specifies the psychological mechanisms regulating the enactment and protection of an intention in the face of competing alternatives, weakening thoughts, and unwanted emotions (Perry et al., 2001). One of the main focus of his theory is the strategies that enable people to protect their intentions from competing action alternatives. It is an important contributor to task performance because it enables individuals to carry out their intentions to complete a goal (Menec et al., 1994). Action control helps to maintain intentions that are difficult to implement. It has been shown that individuals holding unstable intentions are less likely to act on their intentions (Sniehotta, et al., 2006). Applying it to educational setting, a consistent link between academic control and educational success indicates that students with more action control do better. Kuhl's theory would suggest that students who are action-oriented would be better prepared to deal with various challenges such as failing a test or a subject thereby increasing the success in school. Given this control strategy, students can directly act to control inattention and disruptive types of behavior.

Kuhl explained that in order to focus more on the current intention or goal, an individual has to strengthen his or her motivation towards achieving it (Menec, 1994). For example, the individual must focus more on the positive outcomes of his/her goal so that he/she will not be distracted by internal and external factors therefore increasing action control. In relation to student participation, theorists argue that motivation increases student participation because it directs one's behavior towards

classroom tasks and goals (Finn, 1993). It also contributes to the students' academic outcomes because it directs students' action and activities (Wentzel, 1999). It means that the more motivated the student is, the more that he or she participates in all classroom activities and discussion.

Action and State Orientation

The action and state orientation are concerned with the differences when it comes in performing and achieving a certain goal (Kuhl, 1994). It is also defined as the individual differences and persistence of one's goals and the ability to protect goals through the use of different mechanisms and techniques (Diefendorff, Hall, Lord, & Stream, 2001). Basically action control is divided into two orientations namely action orientation and state orientation. An individual with a strong action orientation has the ability to use and maximize the cognitive sources that he has in accomplishing a task, thus having the opportunity to move from his present goal to his future goal (Diendorff, Hall, Lord, & Stream, 2000). These individuals have the ability to give equal focus and attention to the strategies they are going to use in accomplishing the task at hand (Diendorff, Hall, Lord, & Stream, 2000). According to Kuhl (1994), an individual who is more action oriented have a better efficiency in his performance and can still perform well even after experiencing a failure.

Action orientation has three components namely: (1) initiative, (2) persistence, and (3) disengagement. On the other hand, an individual who is more state oriented have relentless thoughts on other goals that affects and reduces his cognitive sources for goal accomplishing (Diendorff, Hall, Lord, & Stream, 2000). The effect of state orientation on the individual weakens the engagement to different activities and they tend to have a hard time in accomplishing a task whether it is difficult or not (Brunstein & Olbrich, 1985; Goschke & Kuhl, 1993; Kuhl, 1981; Kuhl, 1994).

According to Perry, Hladkyj, Pekrun, and Pelletier (2001) the action state orientation has three dimensions namely (1) preoccupation, (2) hesitation, and (3) volatility. The preoccupation dimension talks about the ability and the degree of a person to process information which are from the past, the present, and the future and it is the conflict between preoccupation and disengagement (Diendorff, Hall, Lord, & Stream, 2000). Disengagement is the ability of one person to disregard other undesirable things that can hamper the achievement of his goal. A person in a preoccupation dimension knows how to distinguish and prioritize the important things from the not so important things that are needed in accomplishing a task. A person in this dimension has the tendency to focus on the negative, distracting and worrying events such as failure (Hladkyj, Pekrun, & Pelletier, 2001). The next dimension is hesitation, which is the conflict between initiative and hesitation in doing a task and the lack of a person to initiate himself to activities that can help him in achieving his goal (Diendorff, Hall, Lord, & Stream, 2000). Hesitation is also defined as experiencing difficulty in doing actions and thinking of the right decisions (Perry et al., 2001). Action oriented individuals, who have a strong initiative control have an easier time to instigate to work on their tasks. On the other hand, a state oriented individual lacks this initiative in working at his task. Though preoccupation and hesitation are somewhat similar they have different bases which can be distinguished.

Preoccupation simply talks about different thoughts that can distract an individual in achieving something while hesitation talks more about the behavioral ability of an individual to initiate action (Diendorff, Hall, Lord, & Stream, 2000). The third dimension is volatility, which is the opposite of volatility and persistence. It is the ability of an individual to remain as action oriented when needed and the degree to become distracted when working on a task that catches their interest (Diendorff, Hall, Lord, & Stream, 2000). Volatility is also defined as the inability of an individual to complete a task without being interrupted by other unpleasant distractions (Perry et al., 2001). Action oriented individuals who are inclined to the persistent pole has the ability to keep their focus on the task until they are completely finished while state oriented individuals are the ones that are easily distracted in their task which results their impaired overall performance or simply does not finish the task (Diendorff, Hall, Lord, & Stream, 2000). Basically the action state orientation talks about strategies and ability depending if an individual is more action orientated or more state related in accomplishing a task or behavior.

Students who are able to concentrate and able to do their classroom task is perceived to have initiative and effort to perform well in class. Student's action control is strongly related to the student's participation. Further reviews on student participation to support the claim that action control and student participation are associated.

Student Participation

Student participation is defined as the behavior of a student in a given task or requirement in a class (Dweck, 1989; Finn, 1993; Gottfried, Fleming, & Gottfried, 1994). A student is perceived as participating in class when he or she has the effort or initiative in doing an activity. Previous studies indicate that student participation is related to the student's grades and academic competencies (Valiente, et al., 2008). A study done by Finn, Panozzo, and Voekl (1995) to determine classroom behaviors, showed that student participation has four components namely, initiative, effort, disruptive, and inattentive.

Disruptive Behavior. Disruptive behavior is defined as any classroom behavior manifested by a student that can be considered as a disturbance not only to him but also to his classmates such as interfering to his classmates work, inclined to making noise once he is inside the classroom and draws attention from the teacher in order to be reprimanded (Cianci & Spivack, 1987). Usually these are the students that are restless once they are inside the classroom and because of their restlessness they start to disturb not only their selves but also possibly the whole class. They would make unnecessary movements and actions that would really disrupt the flow of the class and present actions that can fully draw the attention of the whole class away from the lecture which decreases their learning (Millman et al., 1980). Disruptive students somehow present similar characteristics as students who are inattentive and withdrawn in a way that students who possess these behaviors are all off task (Finn, Panozzo & Voekl, 1995). They all present the same negative attitude towards accomplishing school tasks. Disruptive Behavior has been connected and related to

poor and depressed academic performance (Farrington et al., 1990) which has been evident in the elementary grades (Haskins et al., 1983; Swift & Spivack, 1968, 1969). In a study done by Swift and Spivack, (1968) between students from kindergarten until grade 6, they concluded that boys have a higher tendency to be perceived as disruptive as compared to girls.

Farrington et al., (1990) stated that disruptive behavior is connected and related to poor academic performance of a student which in turn gives the student low grades. Disruptive behavior was also said to be related to associated with depressed academic performance (Haskins et al., 1983; Swift & Spivack, 1968, 1969) during the elementary grades of a student while it is related with behavior problems in the upper grades.

There is evidence that grade school students' disruptive behavior is actually related to their grades in a negative way. Various patterns of disruptive behaviors such as hyperactivity and restlessness combined with lack of academic readiness can actually hinder and decrease the academic capabilities of a student, especially reading (Kazdin, 1993; Moffitt & Silva, 1988). Hinshaw (1992) has evidenced that disruptive behavior can also be a result of academic deficiencies. Once students' get low grades and think that their performance in school is bad, it is due to having disruptive behavior. The relationship between disruptive behavior and school performance is observed (Iacono, Johnson & McGue, 2005). But there are other past studies indicating that the relationship between disruptive behavior and school grades is not directly related and decrement in school grades can be attributed to other behavior problems and low IQ (Ferguson & Horwood, 1995; Fergusson, Horwood & Lynsky, 1993; Frick et al., 1991). Studies done by Clark, Prior, and Kinsella (2002) presented that other students who possess disruptive behavior were still able to perform good in school and got respectable grades.

Inattentive Behavior. Inattentive behavior is indicated when a student is not focusing on the teacher and the content of the lesson that is being delivered (Finn, Panozzo, & Voelkl 1995). A student is considered to be inattentive in class once he/she focuses more on the not so important things and does things that are not related to the class discussions. Swift and Spivack (1968) states that inattentive behavior is usually characterized by extraction from class participation, losing focus and not knowing what is going on with the class according to the perspective of the teacher. Once a student shows behavior of being easily distracted and focuses more on unnecessary things such as daydreaming and even sleeping and gives answers that are not related to the lesson itself, a student can be classified as being inattentive-withdrawn (Finn, Panozzo & Voelkl 1995). These types of students actually don't want attention from the class or from the teacher and actually tries not to be noticed. It can sometimes happen unnoticed and can also be overlooked by the teacher and because of this, students are not usually given proper action or solution to the problem (Millman, et al., 1980). One strategy that these students use to keep a low profile once they are inside the classroom is to seat in a less noticeable locations in order not to draw any kind of attention from the class (Finn, Panozzo & Voelkl, 1995). Students who have this type of behavior usually don't distract and interrupt the flow of class discussions and other school activities. Sometimes, it can even ease the

teaching burden among teachers because they might think that students with this behavior understand the lesson clearly well in fact it's the other way around (Finn, et al., 1995).

Several studies conducted in the past actually stated that students who paid attention and responded to the teachers instructions had a positive effect on their school performance (Attwell, Orpet & Meyers, 1967; Cobb, 1972; Good & Beckerman, 1978; Lahaderne, 1968). Basically students who are active in listening in class discussions and who actively participated in school activities would have a greater possibility to have high grades in school. Since these students listen and participate while inside the classroom, they have the tendency to get a better grip on the lesson being taught by their teachers. And when the time comes that these students fully master the lesson that their teacher taught them through discussions and activities, it would probably predict them having higher grades compared to students who are actually inattentive and withdrawn inside the classroom. At the same time, other researchers did find out that inattentive behavior is not totally related to a student's academic performance (Swift & Spivack, 1968, 1969). In one study done by Haskins, Ramey, and Walden (1983), they found that those students who were considered to be poor readers were students who did not engage in tasks and activities in school as compared to students who belong to high reading groups. The failure to engage and participate in activities predicted low reading capacity in kindergarten and grade one students. Also in this study, the students who were labeled as poor readers were less reactive and less attentive as compared to students who were good readers (Finn, Panozzo, & Voelkl 1995). Based on these studies, attentiveness and learning have a mutual relationship and once the student fails to give full attention to the teacher and to the activities can hinder the academic performance. Recent studies have identified that inattentiveness is more likely to be associated with academic underachievement than other externalizing behaviors such as antisocial or overactive behavior (Dally, 2006). This is due to the fact that inattentive students are less likely to participate and benefit in classroom activities and discussions because they are often times not focused (Lonigan et al., 1999).

Student Effort. Student effort is the total amount of time and energy that a student spends in accomplishing the requirements that the school or the teacher has set up (Carbonaro, 2005). Student effort is one factor that can greatly affect a student in accomplishing his goals that he has set up. According to Carbonaro (2005), there are three types of effort present in students which are Rule oriented, procedural and intellectual. Rule oriented occurs when students comply and follow the rules and regulations that the school has set up. An example of this scenario is when students are obliged to go to class everyday and refrain from being absent. Next type of student effort is procedural, in this type students are required to meet the demands and the requirements that a specific teacher has set up for his class. Example in this type is students are required to submit every assignment that the teacher has given them. Lastly the third type of student effort is intellectual where in this type students are required to exert and use their cognitive and intellectual abilities to meet the demands posted by the subject and the teacher. There are certain factors that affect the effort that students exert in their school performance. In a study conducted by Willis (1977) in England found that resistance is one factor

that negatively affects the exertion of effort of a student. Resistance obviously contributes to the withdrawal of student effort. Other factors that have an effect on students' effort are motivation and self efficacy (Bong & Clark, 1999). It is said that these two factors clearly explains why some students exert greater amount of effort than other students. It is important to know that effort and engagement are two different concepts (Carbonaro, 2005) and keep in mind that effort is a key component of engagement (Johnson, Crosnoe & Elder, 2001; Smerdon, 1999).

Studies done in the past have showed that student effort is directly related to academic achievement (Carbonaro, 2005). In a study done by Farkas et al. (1990), showed that a student's work habits, as measured by class participation, organization, and effort, did have a positive effect on a student's mastery of courses and their grade point averages (GPAs). Since effort can be measured by the time that one student spends on his homework (Natriello & McDill, 1986), studies previously done have indicated that it is directly related to better academic achievement (Alexander & Cook, 1982; Carbonaro & Gamoran, 2002; Natriello & McDill, 1986). Once a student exerts a great amount of effort in meeting the requirements of a subject and devotes himself to the subject, it produces a great amount of satisfaction within which eventually can contribute to a better learning. This satisfaction may come in and be evident in the form and of knowledge gained, achievement test scores and school grades (Needham, 1978).

Student Initiative. The traditional school setup involves the principals making decisions for the teachers and teachers making decisions for their students. The classroom management and teaching strategies are typically the teachers always making decisions for the students. Students merely accept the terms and condition of the teacher, not questioning the teacher especially in an Asian context. Giving students a chance to partake in decision making in the classroom encourage students to initiate their own learning (Wade, 1995). Having students to be part on lesson planning, grading system, requirements and classroom policies makes them more enthusiastic on the subject. When students feel enthusiastic and interested in what they do, they develop a high initiative making them achieve better in academics. Teachers have a big role in the development of student initiative. Empowering students to take part of decision making, choice of teaching strategies and alternatives could initiate student learning (Wade, 1995).

Practicing democracy in schools are evident in most schools today. Teachers have always been part in the development of school programs. True democracy in schools will not be attained until the students take part or at least be given the opportunity to participate in the plans and conduct activities that involves them (Bolmeier, 2006). When students get involved in decision making and activities, they tend to be more focused and have high initiative towards learning (Bolmeier, 2006).

Kreisberg (1992) studied empowerment in schools that involves the development and confidence and efficacy as well as skills in self-expression, organization, decision making and communication. The results of the study showed that having a democratic classroom greatly affects student's initiative thus affecting their academic grades. Having high initiative in their studies makes students exert effort to perform better and attain a higher academic grade (Wade, 1995). Developing

empowerment to students is critical for student's initiative to learn. The teacher's teaching style should include effort in developing initiative on students. Encouraging student initiative is done by having a democratic classroom (Wade, 1995). The democratic classroom practices include having the students facilitate the class having their own choice on how to present the given topic. Consultation with the teacher is done before the actual presentation. This example practice encourages students to have initiative to learn, resulting to a higher grade achievement.

Having initiative starts with the student having interest in going to class and being there on time. One of the steps for students to exert effort to be in class is to provide a proper physical environment (Bolmeier, 2006). This includes the teacher giving no tension to the students. Teachers should be careful not to ridicule their students for it has a negative effect to student initiative to learn having a negative effect on the academic performance. It is in the classroom environment that students feel the interest to learn and having initiative to do school work and learn. When students have an initiative to do their work, it will affect their academic performance hence having the teachers give them a high grade.

School Ability

School ability is associated to the ability of a student to learn and how quickly a student can learn. A learner possessing high ability can give remarkable performance and is confident in doing his or her work well. On the other hand, a low ability learner is associated with poor learning capacity and unable to sustain or engage in a given task (Wentzel, 1993). Students who usually possess high ability are the ones who achieve, perform better in class compared to the low ability students.

Having a high ability sets the student apart from the low ability learners in terms of their school performance and behavior. For many years the high ability status of students has been determined based on the results of their school ability tests. School ability tests are generally valid criteria for classroom performance (Crano, Messe, & Rice, 1979). Ability tests have been the most used tests in predicting classroom performance. Studies show that high ability students are capable of controlling their action and behavior inside the classroom and know how to maintain and engage in a specific task (Crano, Messe, & Rice, 1979). However, other researchers have tried to debunk this argument. The school ability test results are not an indicator of classroom performance (Goldman & Hartig, 1976). Not just because a student performed low in school ability tests doesn't necessarily follow that the student will perform poorly in classroom tasks and seen as disruptive in classrooms.

Student's school ability is a key factor in action control and student participation. A student who is high in ability is perceived to also have an ability to be able to engage and disengage in a task. Also, the student who is high in ability is able to control his or her emotion thus able to control his or her behavior. On the other hand, students with low school ability is perceived to have less control of his emotions thus not being able to control his or her behavior. School ability serves as the mediating factor in comparing action control and student participation among high and low ability students.

The Present Study

The study is anchored on the Action Control theory by Julius Kuhl (1985) to explain the relationship of action control and students' participation of students with high and low school ability levels. Students' participation is carried effectively if a student can control distractions from the environment. This mechanism is called action control (Kuhl, 1986). Action control have two components: Action orientation and state orientation. Action orientation has three components namely, initiative, persistence, and disengagement, while state orientation also has three components, hesitation, volatility and preoccupation. According to previous studies, the relationship of the student's participation and action control happens when a student uses action orientations (initiative control, persistence, and disengagement) and is perceived to have increased initiative and effort. However, their relationship will depend on students' school ability.

For students with high ability, the components of action orientation is hypothesized to have a stronger positive relationship with student participation (initiative and effort) than students with low ability. Students who have high ability are said to have good determination and confidence with their school works (Wentzel, 1993) and they are more likely capable of using action orientation to complete their task.

On the other hand, the relationship of action orientation with inattentive and disruptive student participation will be negative as compared with students with low ability. When state orientation is correlated with initiative and effort, a negative relationship is expected among students with low ability. Previous studies have stated that students with low ability levels have a hard time engaging in task and have poor learning capacity (Wentzel, 1993). They also get easily distracted and tend to think of the negative consequences or outcomes of their actions (Hladkyj, Pekrun & Pelletier, 2001).

When state orientation is correlated with initiative and effort, a negative stronger relationship is expected among students with low ability. On the other hand, state orientation when correlated with inattentive and disruptive student participation will results to a stronger negative relationship among students with low ability.

Method

Participants

The participants were 224 students who are all studying in a private high school in Manila. Participants' age range is 16 to 18 years old and they are currently in fourth year high school (Year 10). The participants were pre selected according to the ability group they belong to (high or low). Purposive sampling was used in selecting participants. The selection criteria would be: (1) High school students who are studying in a private school in Metro Manila, (2) students who are willing enough to

answer the different instruments that the researchers are going to use for this study and (3) students who are classified as either high ability or low ability.

Instruments

Student Participation Questionnaire. The instrument was developed by Finn, Panozzo and Voelkl (1995) to measure the behavior and participation of students. This instrument has two scales that reflect positive behavior, which are effort (“is persistent when confronted with difficult problems”) and initiative (“does more than just the assigned work”), and two scales that reflect negative behavior, which are disruptive (“acts restless, is often unable to sit still”) and inattentive (“doesn’t seem to know what is going on in the class”). Using this instrument, the researchers would know whether the students possess these types of behavior according to the rating that their teachers. The instrument has a response scale ranging from Never (1) to Always (5). Each factor has different number of items in which for the negative behavior, disruptive has a four item scale and inattentiveness has a five item scale. While for the positive behavior, effort has a nine item scale and initiative has a seven item scale. Coefficient alpha reliabilities for the four scales for the students were, .93 for effort, .89 for initiative, .90 for disruptive and .75 for inattentive. The raters in this study were the advisers of the participants. They used this questionnaire to rate each students’ class participation and classroom performance based from their perception.

Academic Control Questionnaire (ACS-90). The instrument was developed by Julius Kuhl in 1994 to measure the action control of students. It has six dimensions, initiative, persistence and disengagement for Action Orientation and preoccupation, hesitation and volatility for State Orientation. The instrument has a 36 item questionnaire and the response scale is from never (1) to always (4). Different items target the different components of the Action State Orientation. The reliability for the components are as follow, for preoccupation is .66, hesitation is .74 and for volatility .51.

Otis-Lennon School Ability Test (OLSAT). This instrument was developed by Arthur Otis and Roger Lennon in order to provide an accurate and efficient measure of the abilities needed to acquire the desired cognitive outcomes of formal education. It has a total of eighty items which are all multiple choice and each number has five choices. The Otis Lennon aims to concentrate on assessing the verbal educational factor, to the virtual exclusion of practical mechanical abilities. The OLSAT series is organized in five levels that collectively asses the range of ability commonly found in grade one through grade twelve. Knowing whether the student who took this test either belongs to the high or low ability depends of the norms that have been used. Age norms or grade norms can be used in order to estimate the school learning ability. Kuder Richardson was used in order to know the reliability of this instrument while correlating the Otis Lennon scores and teacher grades for the elementary and high school curricular areas were obtained from information supplied by four diverse school systems.

Students who got raw scores from 80-54 had an equivalent score of 9-7 in their stanine thus classifying them as high ability students. Students who had raw scores of 53-36 and had an equivalent score of 6-4 in their stanine were students classified as average students. And students who got raw scores of 27-0 and had equivalent stanine scores of 3-1 were classified as the low ability students. This process of classifying the high ability, the average and the low ability was based from the stanine conversions presented in the OLSAT manual for interpreting the scores.

Procedure

A letter of consent would be signed by the adviser and the parents of the students stating that they are allowing their child/student to participate in the study. First, the researcher identified which students belong to the high and low ability group in different sections through the OLSAT scores provided. The high and low ability students were classified by using the stanine for interpreting the OLSAT scores. Then after identifying and selecting students who belong in low and high ability groups, these students were asked to answer the ACS-90 and their respective teachers were asked to rate them using the SPQ. The participants were pre-selected according to the ability group they belong to based on their prior scores in the OLSAT. Then the teachers were asked to complete the Student Participation Questionnaire to determine their students' behavior presented in the instrument. The SPQ is given to the teacher and one student corresponds to one SPQ. One adviser is given instructions how to accurately rate his/her students. Rater fatigue was avoided since the participants are pre-selected where each teacher only rated 10-14 students. After the rater have completed the SPQ's they were thanked and debriefed about the purpose of the study.

Data Analysis

First, the researchers classified the students whether they belong to the high ability or low ability group through the OLSAT scores. The norms that the school has set up in identifying the students' ability groups were used. Using the stanine for interpreting the scores from the OLSAT, students who got raw scores from 80-54 had an equivalent score of 9-7 classifying them as high ability students. Students who had raw scores of 53-36 had an equivalent score of 6-4 in their stanine classifying them as average students. And students who got raw scores of 27-0 had equivalent stanine scores of 3-1 classified as the low ability students.

The Pearson r was used to correlate the components of the action control and student participation. The researchers correlated Action Orientation and State Orientation to the four components of student participation. Two sets of correlations were conducted: One for the high ability and another for the low ability group.

The correlation coefficients were compared using the formula provided by Cohen and Cohen (1975)

$$z = \frac{z'_1 - z'_2}{\sqrt{\frac{1}{n_1 - 3} + \frac{1}{n_2 - 3}}}$$

The correlation coefficients were first converted into z' using the formula:
 $z' = .5[\ln(1+r) - \ln(1-r)]$ (Cohen & Cohen, 1975). The resulting z is then tested for significance.

Results

Table 1 shows the mean and the standard deviation of all the subscales of Action Control and subscales of Student Participation. Table 1 also shows the reliability using Cronbach's Alpha, of Action Control, and Student Participation. While Table 2 shows the correlation values between the subscales of action control and student participation among the high and low ability group.

Table 1
Means and Standard Deviations of Action Control and Student Participation

	High ability			Low ability			Cronbach's Alpha
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	
Action Orientation							.70
Disengagement	114	35.16	3.58	110	31.97	3.86	.53
Initiative Control	114	33.99	5.60	110	33.47	4.45	.57
Persistence	114	34.54	4.28	110	33.52	4.73	.64
State orientation							.86
Hesitation	114	31.71	5.28	110	30.58	5.00	.75
Preoccupation	114	29.38	5.47	110	28.22	4.90	.75
Volatility	114	31.75	4.73	110	29.86	4.59	.68
Student Participation							.90
Effort	114	34.04	3.98	110	13.24	1.88	.96
Initiative	114	27.38	3.54	110	11.70	1.63	.94
Disruptive	114	8.11	1.84	110	16.14	0.75	.92
Inattentive	114	10.53	2.92	110	18.59	1.54	.90
OLSAT	114	65.40	5.92	110	23.53	2.83	

The means show a pattern that the high ability group have higher action orientation scores than the low ability group. However, higher means were also obtained for state orientation among the high ability group. The participants in the high ability group were rated higher on effort and initiative while the low ability group was rated higher on disruptive and inattentive subscales of the SPQ.

The subscales of the action control were intercorrelated with the subscales of the student participation questionnaire. The intercorrelations were done separately for the high and low ability group. The correlation coefficients obtained between the high and low ability group were compared using a z statistic and the difference of the r 's was tested for significance.

Table 2 shows that among the low ability group, significant correlations were found only between disruptive and volatility ($r = -0.22^*$). A correlation indicates a negative magnitude where the higher disruptive, the lower the volatility scores.

Table 2
Correlations of Action Control and Student Participation for High and Low School Ability Groups

	Low ability	High ability	Low ability	High ability	Low ability	High ability	Low ability	High ability
	effort		Initiative		disruptive		Inattentive	
Action Orientation								
Disengagement	-0.09 z=0.24	-0.12 p=.40	-0.04 z=0.02	-0.05 p=.49	-0.09 z=-0.32	-0.04 p=.37	0.05 z=1.61*	-0.18 p=.04
Initiative control	0.02 z=-0.96	0.15 p=0.16	0.10 z=0.28	0.06 p=.39	0.09 z=1.00	-0.05 p=.15	0.06 z=-1.48*	-0.25* p=.00
Persistence	0.11 z=-1.20	0.26* p=.11	-0.12 z=-1.07	0.02 p=.14	0.21* z=2.83*	-0.17 p=.002	-0.06 z=-1.22	0.10 p=.11
State orientation								
Hesitation	-0.05 z=-0.74	0.05 p=.22	-0.08 z=-0.68	0.02 p=.24	-0.10 z=-1.01	0.04 p=.15	0.03 z=-0.69	0.12 p=.25
Preoccupation	0.03 z=-0.82	0.14 p=.21	-0.02 z=-0.75	0.08 p=.22	0.20 z=1.19	0.04 p=.11	0.03 z=-1.99*	0.29* p=.02
Volatility	0.11 z=2.23	-0.19 p=.01	-0.03 z=-0.16	-0.01 p=.43	-0.22* z=-1.62	-0.01 p=.05	0.05 z=-1.30	0.23* p=.09

* $p < .05$

For the high ability group, significant correlations were found between inattentive and initiative control ($r = -0.25^*$), between inattention and preoccupation ($r = 0.29^*$), and between inattention and volatility ($r = 0.23^*$). It can be observed that within the correlation coefficients in the high ability group, negative correlations were found for inattention which is negative student participation and initiative which is an action orientation. Positive correlations were found for inattention (negative student participation) and preoccupation and volatility (state orientations). These magnitudes are consistent with the hypothesis.

When the correlation coefficients were compared for the high and low ability groups, significant difference was found for the correlations of disruptive and persistence (low ability = .21, high ability = -.17), inattentive and disengagement (low ability = .05, high ability = -.18), inattentive and initiative control (low ability = .06, high ability = -.25), and inattentive and preoccupation (low ability = .03, high ability = -.29), $p < .05$. The difference in the correlation coefficients show that majority of difference between high and low ability groups were among inattentive and the action orientation subscales. For state orientation, only the correlation between preoccupation and inattentive was different between the high and low ability group.

The differences in the correlation coefficients show that when persistence is high, disruption is low among the high ability group, but both of them increase among the low ability group. The higher the disengagement, the lower the inattention for the high ability group, but a weak correlation exists for the low ability group. Initiative control increases, and inattention decreases for the high ability group, but this correlation is very weak for the low ability group. A higher correlation was found

between preoccupation and inattention among the high ability group, but this correlation is weak for the low ability group.

Discussion

It was found in the study that as disengagement increases, inattention decreases among the high ability group. This result supports the claim that high ability students who are able to block all negative thoughts (e. g., fear of failure) and focus more on their task at school do not become inattentive anymore. But a student that uses disengagement with low ability still becomes inattentive because of the fact that they are preoccupied with negative thoughts. Disengagement for high ability students is more effective because they are more capable of focusing on their school tasks and they are able to block all negative thoughts regarding their actions. They are able to focus on the teacher and the content of the lesson that is being delivered to them. For low ability students, even though they use disengagement, it is not effective because they do not have the right skill and capability to block all distractions and they fear that they will not be able to accomplish their task. They cannot focus on the lesson that the teacher is trying to impart to them.

It was also found out in the study that for high ability students, as initiative increases inattention decreases. Initiative is the students' ability to make rational decisions and actions that are needed in order to fulfill his or her task. High ability students who are initiative in their class are often the ones who can easily listen to the lesson being delivered by the teacher and accomplish their task on time because they choose the right actions and make the decisions needed for their task class. On the other hand, initiative students with low ability are not that effective in accomplishing their school task because they do not have the right skill and proper mindset. They still get easily distracted by various factors coming from their environment such as noise and class atmosphere and as well as factors coming from their selves like teacher preference and subject interest.

Another finding that the researcher were able to obtain from the study is that for students with high ability level, as persistence increases, disruption decreases. High ability students who are persistent are able to pursue or finish school activities without being distracted by other factors. Persistent students are very determined when doing a school task that is why they do not get distracted easily by factors coming from their environment or problems from within. Students with low ability who are persistent on the other hand still get easily distracted because they do not have the right mindset and determination to accomplish their task at hand. They manifest behaviors that can cause disturbance not only to his or herself but the whole class as well. They tend to distract other people in class because they cannot focus and are too impulsive.

The last finding that the researcher was able to obtain is that for high ability students, as preoccupation increases, inattention also increases. However, the results showed no significant relationship between the two variables. For students with low ability, students who are preoccupied are also inattentive in class. They are preoccupied with a lot of different things when they are in class and because of this they lose their focus in class. Students cannot focus on the lesson being delivered by

the teacher because they do not have the ability to block the things that distracts them.

The present study was only able to partially support the hypothesis posed. The difference high and low students' abilities only occurs in some of the relationships between action control and student participation. Inattention showed to have a stronger negative correlation with disengagement and initiative among students with high ability. Inattention also converges with preoccupation among students with low ability.

References

- Alexander, K., & Cook, M. (1982). Curricula and coursework: A surprise ending to a familiar story. *American Sociological Review*, 63, 536-53.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bolmier, E.C. (2006). 6 steps to pupil participation in democratic school control. *Teacher Journals*, 79, 198.
- Bong, M., & Clark, R. (1999). Comparison between self-concept and self-efficacy in academic motivation research. *Educational Psychologist*, 35, 139-53.
- Bornstein, J. C., & Otorich, E. (1985). Personal helplessness and action control: Analysis of achievement-related cognitions, self-assessments, and performance. *Journal of Personality and Social Psychology*, 48, 1540-1551
- Brehmer, B., Jungerman, H., Lourens, P., & Sevón, G. (Eds.). *New directions in research on decision making* (pp. 5-28). New York: Elsevier Science.
- Carbonaro, W. (2005). Tracking student's effort, and academic achievement. *Journal of Sociology of Education*, 78, 27-49.
- Carbonaro, W., & Gamoran A. (2002). The production of achievement inequality in high school English. *American Educational Research Journal*, 39, 801-27.
- Crano, W. D., Messe, L. A., & Rice, W. (1979). Evaluation of the predictive validity tests of mental ability for classroom performance in elementary grades. *Journal of Educational Psychology*, 71(2), 233-241.
- Cohen, J., & Cohen, P. (1975), *Applied multiple regression/correlation analysis for the behavioral sciences*. Hillside, NJ: Lawrence Erlbaum Associates.
- Diefendorff, J. M., Hall, R. J. Lord, R. G., & Strean, M. L. (2000). Action-state orientation construct validity of revised measure and its relationship to work-related variables. *Journal of Applied Psychology*, 85(2), 250-263.
- Dweck, C. S. (1989). Motivation. In A. Lesgold & R. Glaser (Eds.), *Foundations for a psychology of education* (pp. 87-136). Hillsdale, NJ: Erlbaum.
- Farkas, G., Grobe, R., Sheehan, D., & Shuan, Y. (1990). Cultural resources and school success: gender, ethnicity, and poverty groups within an urban school district. *American Sociological Review*, 55, 127-142.
- Farrington, D. P., Loeber, R., Elliott, D. S., Hawkins, J. D., Kandel, D. B., Klein, M. W., et al. (1990). Advancing knowledge about the onset of delinquency and crime. In B. B. Lahey & A. E. Kazdin (Eds.), *Advances in clinical child psychology* (Vol. 13, pp. 383-442). New York: Plenum Press

- Fergusson, D. M., & Horwood, L. J. (1995). Early disruptive behavior, IQ, and later school achievement and delinquent behavior. *Journal of Abnormal Child Psychology*, 23, 183-199.
- Fergusson, Horwood & Lynsky, 1993; Fergusson, D. M., Horwood, L. J., & Lynsky, M. T. (1993). The effects of conduct disorder and attention deficit in middle childhood on offending and scholastic ability at age 13. *Journal of Child Psychology and Psychiatry*, 34, 899-916.
- Finn, J. D. (1993). *School engagement and students at risk* (Publication No. NCES 93470). Washington, DC: U.S Department of Education, National Center of Educational Statistics. (ERIC Document Reproduction Service No. ED 362 322)
- Finn, J. D., Pannozzo, G. M., & Voekl, K. E. (1995). Disruptive and inattentive-withdrawn behavior and achievement among fourth graders. *Elementary School Journals*, 95, 421-434.
- Frick, P. J., Kamphaus, R. W., Lahey, B. B., Loeber, R., Christ, M. A. G., Hart, E. L., & Tannenbaum, L. E. (1991). Academic underachievement and the disruptive behavior disorders. *Journal of Consulting and Clinical Psychology*, 59, 289-294.
- Gottfried, A. E., Fleming, J. S., & Gottfried, A. W. (1994). Role of parental motivational practices in children's academic intrinsic motivation and achievement. *Journal of Educational Psychology*, 86, 104-113.
- Goschke, T., & Kuhl, J. (1993). Representation of intentions: Persisting activation in memory. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 19, 1211-1226.
- Haskins, R., Walden, T., & Ramey, C. T. (1983). Teacher and student behavior in high- and low-ability groups. *Journal of Educational Psychology*, 75, 865-876.
- Johnson, M. K., Crosnoe, R., & Elder, G. (2001). Students attachment and academic engagement: The role of race and ethnicity. *Sociology of Education*, 74, 318-40.
- Johnson, W., McGue, M., & Iacono, W., (2005). Disruptive behavior and school grades: Genetic and environmental relations in 11-year-olds. *Journal of Educational Psychology*, 97(3), 391-405.
- Kreisberg, S. (1992). *Transforming power: Domination empowerment and education*. Albany: State University of New York Press.
- Kuhl, J. (1994). A theory of action and state orientation. In J. Kuhl & J. Beckmann (Eds.), *Volition and personality: Action versus state orientation* (pp. 9-46). Seattle, WA: Hogfre & Huber.
- Kuhl, J. (1985). Volitional mediators of cognition-behavior consistency: Self-regulatory processes and action versus state orientation. In J. Kuhl & J. Beckmann (Eds.), *Action control: From cognition to behavior* (pp. 101-128). Berlin, Germany: Springer-Verlag.
- Kuhl, J. (1981). Motivational and functional helplessness: The moderating effect of state versus action orientation. *Journal of Personality and Social Psychology*, 40, 155-170.
- Kuhl, J. (1979). The dynamic theory of achievement motivation: from episodic to dynamic thinking. *Psychological Review*, 86, 141-151.

- Menec, V. H., & Schonwetter, D. J. (1994). Action control, motivation and academic achievement. *Research in Higher Education*, 45, 801-828.
- Millman, H. L., Schaefer, C. E., & Cohen, J. J. (1980). *Therapies for school behavior problems*. San Francisco: Jossey-Bass
- Natriello, G. & McDill, E. (1986). Performance standards, student effort on homework and academic achievement. *Sociology of Education*, 59, 18-31.
- Needham, D. (1978). Student effort, learning and course evaluation. *The Journal of Economic Education*, 10(1), 35-43.
- Perry, R. P., Hladkyj, S., Pekrun, R. H, & Pelletier, S. T. (2001). Academic control and action control in the achievement of college students: A longitudinal study. *Journal of Educational Psychology*, 93(4), 776-789.
- Schmitt, N., Oswald, F. L., Kim, B. H., Imus, A., Merritt, S., Friede, A., & Shivpuri, S. (2007). The use of background and ability profiles to predict college student outcomes. *Journal of Applied Psychology*, 92(1), 165-70.
- Smerdon, B. (1999). Engagement and achievement: differences between African American and white school students. *Research in Sociology of Education and Socialization*, 12, 103-34
- Sniehotta, F. F., Nagy, G., Scholz, U., & Schwarzer, R. (2006). The role of action control in implementing intentions during the first weeks of behavior change. *British Journal of Social Psychology*, 45(1), 87-106.
- Spivack, G., & Cianci, N. (1987). High-risk early behavior pattern and later delinquency. In J. D. Burchard & S. N. Burchard (Eds.), *Prevention of delinquent behavior* (pp. 44-74). Beverly Hills, CA: Sage.
- Swift, M. S., & Spivack, G. (1968). The assessment of achievement-related classroom behavior. *Journal of Special Education*, 2(2), 137-149.
- Valiente, C., Lemery-Chalfant, K., Swanson, J., & Reiser, M. (2008). Prediction of children's academic competence from their effortful control, relationships, and classroom participation. *Journal of Educational Psychology*, 100, 67-77.
- Wade, R. C. (1995). Encouraging student initiative in a fourth-grade classroom. *Elementary School Journals*, 95, 339-354.
- Wentzel, K. R. (1999). Social-motivational processes and interpersonal relationships: Implications for understanding motivation at school. *Journal of Educational Psychology*, 91, 76-97.
- Wentzel, K. R. (1993). Does being good make the grade? Social behavior and academic competence in middle school. *Journal of Educational Psychology*, 85(2), 357-364.
- Willis, P. (1977). *Learning to labor*. New York: Columbia University Press.