

Cognitive and Psychosocial Dispositions: Influence on Self-Perceived Employability among First Batch of Senior High School Graduates

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ABSTRACT

Philippines saw another massive reform in its educational system when the K-12 Program was signed into law back within 2013. Presuming that cognitive and psychosocial dispositions are central to the Senior High School graduates' decisions after Grade 12, this study verified the graduates' assessments of their academic self-efficacy, self-regulated learning, career decision self-efficacy, and self-perceived employability. More than 1500 completers from three major higher educational institutions of a city in Southern Philippines participated in the study. Using descriptive research design, a modified survey questionnaire that went through rigid construct validity and reliability processes was the main data gathering tool. This was complemented with qualitative information using focus group discussions. The findings revealed that there was a moderate assessment of their self-perceived employability and that self-regulated learning is a strong predictor of self-perceived employability. This research hoped to provide

solid information for curriculum enhancement and policy formulation of the Philippine Educational system specifically for the Basic Education.

Keywords: Academic Self Efficacy, Self-Regulated Learning, Perceived Employability, Career Decision Self-Efficacy

INTRODUCTION

The massive Philippine educational reform highlighted by the K to 12 Program saw the first batch of Grade 12 completers in March 2018. The three years addition to the country's Basic Education was not only meant for the Philippine Educational Framework to be at par with global standards; the said framework also aimed to provide sufficient time for mastery of concepts and skills, develop lifelong learners, and prepare graduates for tertiary education, middle-level skills development, employment, or entrepreneurship (Republic Act No. 10533). After graduation where completers are already at least 18 years old, the K-12 Program was designed to harness them with needed basic competencies for independence and to prepare them for tertiary education and for gainful employment. Whatever choices they may have, this study asserts that these learners would view themselves as productive adolescents capable of engaging in whether they pursue higher education or choose to be employed. It is in this line of thought that this study was conceptualized.

There is a dearth of studies that has been conducted as to the status of the graduates' cognitive and psychosocial dispositions needed to undertake tertiary education or to embark into employment or both. Employers have openly expressed their preference for desirable dispositions and /or pleasant attitudes much more than what is reflected in applicants' resumes. Taylor (2011) in his Harvard Business Review article quoted "we recruit for attitude, train for skills." Employers prioritize job applicants with the right attitude to work rather than the skills listed on their CVs, new research shows (Tyler, 2011).

The industry sector, specifically, the Philippine Chamber of Commerce and Industry (PCCI) are apprehensive of the first batch of K-12 graduates' work capabilities. They further recounted that the minimum requirement of 80 hours or 2 weeks for the students' on-the-job training was not enough to prepare them for skilled jobs (The Filipino Times, 2018). This is an area of research that needs to be expanded or further explored for HEIs to cope effectively with whatever learning difficulties or academic deficits that may confront these new batches of graduates.

Studies reported that learners' cognitive and psychosocial dispositions such as self-regulated learning and academic self-efficacy and career decision self-efficacy, may be linked to their self-perceived employability, a construct needed to have a positive outlook toward work. Some scholars emphasized that academic skills are important to employability. A career model on generic employability suggests that willingness to learn be included within the skills that should be developed among the graduates (Pool & Sewell, 2007; Sewell & Pool, 2010). Further, Yorke and Knight (2006) outlined that employability is influenced by understanding, skills, efficacy beliefs, and metacognition. Taking these employability models together, strategies that guide students in developing a capacity for self-regulation and in learning how to learn to be a lifelong learner are particularly important for the enhancement of graduates' employability (Qenani, MacDougall, & Sexton, 2014). The collective efforts of Lapan (2004) and Bluestein (2006) in Lu (2016) suggested that self-regulated learning empowers students to be successful learners with a highly skilled and occupational competence which might augment volition in working. This, in fact, can serve to enhance students' perceptions of the academic and occupational competencies needed in highly skilled workforce.

This study intended to provide solid information for curriculum enhancement of the involved higher education institutions. The result may also contribute initial trigger data to find relevance in expanding the study to wider population for policy formulation in the Philippine Educational system specifically for the basic education. This research also hoped to contribute to the scant investigations on the Grade 12 graduates' entry to higher education and work choice particularly in the Philippines.

FRAMEWORK

It is postulated that self-perceived employability is influenced by an individual's academic self-efficacy, self-regulated learning, and career decision self-efficacy. It is further assumed that these are constructs can gauge K-12 completers' capability for college work or for gainful employment or for both. Thus, this concept is anchored on the model of Rothwell, Herbert & Rothwell (2008) on self-perceived employability as discussed by Lu (2016); Zimmerman's (2013) Self-regulated Learning Model; Bandura's Social Cognitive Theory (1997); and Taylor & Betz Career Decision Self Efficacy (Reddan, 2015). The succeeding paragraphs explain the salient concepts used as framework of the study.

Self-Perceived Employability. The concept of self-perceived employability is lifted from the dissertation of Lu (2016) on "Self-regulated learning in college

students' work volition: The mediating effects of self-efficacy and self-perceived employability." As cited, employability is defined as the individual's perception of one's possibilities to obtain and maintain employment (Vanhercke & et al., 2014). Specifically, self-perceived employability is the ability to attain sustainable employment appropriate to one's field of study. The model of Rothwell, Herbert & Rothwell (2008) organizes self-perceived employability into four components: self-belief, the state of external labor market, one's alma mater and one's field of study. Self-belief points to the individual's skills and behavior (Rothwell, Jewell, & Hardie, 2009); sense of understanding of one's attributes relating to job knowledge and skills mastery and personal confidence and efficacy (Rothwell et al, 2008). Further, the reputation or the perception of the university's reputation where the student belongs is also a probable asset for the individual. The field of individual study or academic major pertains to the individual academic career. This academic discipline is said to influence individual career identity, employability outcomes and perception of the status and credibility of one's individual field of study. Similarly, the variation of the external labor market affects the individual's employability (Lu, 2016).

In the actual study, statements for self-belief such as, but were not limited to: *"the skills and abilities that I possess are what employers are looking for"*; *"I am generally confident of success in job interviews and selection events"*; and *"I feel I could get any job so long as my skills and experience are reasonably relevant."* Likewise, among the statements for state of labor market and one's alma mater were: *"People in the career I am aiming for are in high demand in the external labor market"* and *"Employers target this University to recruit individuals from my academic track."* For the students' academic field of study, an item indicator: *"My chosen strand rank(s) highly in terms of social status"* was part of the data gathered.

Lu (2016) also cited several studies that have reported self-efficacy to be associated with gaining re-employment (Hillage, & Pollard, 1998; McArdle, et.al., 2007; Pinguart, Juang, & Silbereisen, 2003; Regenold, Sherman, & Fenzel, 1999; Vinokur & Schul, 2002). Moreover, Bandura (1997) stated that "individuals who approached the employment problem with confidence in their capability to find a job were able to delve out job opportunities and present themselves sufficiently well to gain job offers." Bandura further hold that self-efficacy can be the confidence that an individual has in his or her ability to carry out a task that is important in "dealing with the social realities of work situations"

Self-Regulated Learning. Self-regulated learning (SRL) is a core conceptual framework to understand the cognitive, motivational, and emotional aspects of learning. Spawned by Zimmerman (2002), self-regulation is the process

of transforming one's intelligence into academic skills, guiding it to self. Self-regulatory takes result oriented behavior and ideas that it creates on its own as reference. Self-regulatory is significant because the purpose of education is to enhance lifelong learning skills. After graduating from high school or university, young adults can learn very important abilities through unofficial ways (Zimmerman, 2002). In this study, self-regulatory includes strategic performance adjusting processes and self-monitoring (Zimmerman, 2010). Moreover, self-regulated learning is regarded as an important skill in career development, can serve to enhance students' perceptions of the academic and occupational competencies needed in a highly skilled work force (Lapan, 2004). The structure and function of self-regulatory process consists of performance phase, self-reflection phase and forethought phase (Zimmerman, 2002; Zimmerman & Kitsantas, 2005; Zimmerman & Schunk, 2004; Di Benedetto & Zimmerman, 2013).

Performance phase entails self-control and self-observation phases, and takes the specific method chosen at self-control precaution phase as reference. The self-reflection phase, which forms the structure of self-regulatory process, consists of self-judgment and self-reaction phases. Self-judgment takes the comparison of self-observation performances under certain circumstances and affects the importance of goal achieving and its purpose features (Zimmerman, 2002; 1994). If student knows that similar others performed a task, one can reach increased levels of self-efficacy and motivation (Schunk, 1987).

Forethought phase is separated into: self-motivation beliefs and task. It prepares for individuals' learning (Zimmerman, 2002; Zimmerman & Kitsantas, 2005). Task analysis includes goal setting and strategic planning (Zimmerman, 2002; DiBenedetto & Zimmerman, 2013). Self-regulation is situational specific, which means that learners do not engage in self-regulation equally in all domains (Schunk & Zimmerman, 2003). Self-regulatory includes self-monitoring, which involves observing one's own performance and output (Zimmerman & Kitsantas, 2005). Further, Lapan (2004) posited that individuals who are actively in the self-regulatory cycle of forethought, performance-volitional control, and self-reflection phases and then, under more self-determined or self-regulated control, engage in a process of internalizing and integrating uninteresting academic tasks. The author further recounted that such individuals are more likely to accomplish identified and valued academic outcomes and "experience a sense of competence and self-direction in their everyday learning tasks." With the foregoing discussion, self-regulated learning may have a strong bearing on the learners' academic self-efficacy and enhance self-perceived employability.

Career Decision Self-Efficacy. There is an increasing interest in the processes involved in career decisions (Miller in Reddan, 2015). Career decision self-efficacy has been placed into significant research such as those espoused by Taylor and Betz (1983). It is described as a measure of an individual's degree of belief that one can successfully complete tasks necessary in making career decisions (Reddan, 2015). Career Decision Self Efficacy (CDSE) is a salient construct in understanding the career decision-making process (Betz, Hammond & Multon in Jin, Ye & Watkins, 2012). Moreover, it is regarded as a crucial element in an individual's career interests, goals, choices, experiences and performances (Jo & et.al., 2016) implying that this is also making a choice for a profession, education program, job or school (Dogan, 2015). It is the confidence enacted when making effective career decisions and generating positive outcomes in relation to career development roles. These roles include competencies regarding accurate self-evaluation, collecting information about vocations, goal setting, planning and problem-solving (Betz, 2000), which are also basic of academic processes. It is then likely that career decision self-efficacy is significantly associated with self-perceived employability.

Academic Self Efficacy. Literature has established that academic self-efficacy has something to do with an individual's belief (conviction) that they can successfully achieve at designated level on an academic task or attain a specific academic goal (Bandura, 1997; Eccles & Wigfield, 2002; Linnenbrink & Pintrich, 2002a; Schunk & Pajares, 2002). Self-efficacy theory suggests that academic self-efficacy may vary in strength as a function of task difficulty—some individuals may believe they are most efficacious on difficult tasks, while others only on easier tasks; self-efficacy is believed to be situational in nature rather than being viewed as a stable trait (Linnenbrink & Pintrich, 2002). As outlined by Bandura (1997), students with high academic self-efficacy regard difficulties as challenges to be mastered instead of threats and set goals to meet the challenges; are committed to the academic goals they set; have a task-diagnostic orientation, which provides useful feedback to improve performance, rather than a self-diagnostic orientation, which reinforces the student's low expectation about what he or she can accomplish; view failures as a result of insufficient effort or knowledge, not as a deficiency of aptitude; and increase their efforts in cases of failure to achieve the goals they have set. This highlights the reciprocal or cyclical relationships among the environment, self, and behaviors posited by Bandura's (1977) social cognitive theory as discussed by Sharma and Nasa (2014).

For the past few years, the discussion of self-efficacy has extended to the impact on employability as well. In some employability research, self-efficacy is

regarded as one of its components (Knight & Yorke, 2004; Pool & Sewell, 2007). In other words, self-efficacy is one of the important traits that give access to employability (McArdle et al., 2007). As such, employability could be influenced by self-efficacy. The process of aligning career decision making with educational requirements has increasingly become complex with evolution of advanced technology in the world today than before (Onoyase & Onoyase, 2009).

The foregoing conceptual discussions support the arguments that self-perceived employability may have links on students' dispositions and can be explained by self-regulated learning, academic self-efficacy, and career-decision self-efficacy. Evidently, the constructs advanced by Zimmerman (2013) on Self-regulated Learning model; Bandura's Social Cognitive Theory (1977); Taylor and Betz Career Decision Self Efficacy (Reddan, 2015); and Self-Perceived Employability of Rothwell et al. (2008) firmed up the assumptions advanced in this empirical study.

OBJECTIVES OF THE STUDY

This study attempted to establish valid and reliable scales that could appropriately measure the academic self-efficacy, self-regulated learning, self-perceived employability and career decision self-efficacy in the local setting and looked into the self-assessments of Grade 12 completers' self-perceived employability, self-regulated learning, academic self-efficacy, and career decision self-efficacy; it likewise determined the influence of self-regulated learning, academic self-efficacy, and career decision self-efficacy dispositions on their self-perceived employability.

METHODS

Using descriptive correlational research design, specifically the causal comparative method, this study was conducted in three higher education institutions in a major city of Southern Philippines with 1,509 Grade 12 completers participating. Recognizing the diversity of the three institutions, the researchers conducted the tests of normality on the data gathered from the scaled instruments. To gather the quantitative data, the Cognitive and Psychosocial Preparedness Survey Questionnaire for Grade 12 Completers was used. This adapted instrument was based from the various researchers espousing the four (4) main constructs of this study. The first part was the fifteen items of General Academic Self-Efficacy Questionnaire based on Bandura's Social Cognitive Theory (Jerusalem & Schwarzer, 1992; Kabara & Turner, 2017); the second

part of twenty seven items were indicators of Self-regulated Learning modified from Zimmerman, (2000), Efklides (2011) and Pintrich (2000). The third part consisted of twelve items that indicated Self-Perceived Employability by Rothwell, Herbert, & Rothwell (2008) which was used by Lu (2016); and Career Decision Self-Efficacy with sixteen items derived from Betz & Taylor (2012). Exploratory factor analysis conducted for all the four sets of instruments provided evidence of construct validity after these were modified. Focus group discussions and key informant interviews were conducted to give in depth information of the quantitative data. To organize the data, descriptive statistics and multiple linear regressions were used to further attain the objectives of the study.

Furthermore, evidence of student learning through Grade Point Average was not part of the study because student-completers had different subjects by strands and tracks. The use of students' General Point Average (GPA) that has direct bearing on their learning outcome is a limitation of the study. The student-completers had different strands ranging from Humanities (HUMSS); Accountancy, Business and Management (ABM); and Science, Technology, Engineering and Mathematics (STEM). There were other students who were in another track: Technology and Vocational (TECH VOC). Moreover, the three participating institutions do not have common grading system; hence, GPA could not be part of the study.

RESULTS AND DISCUSSION

The Confidence and Construct Validity and Reliability of the Instruments. To establish the confidence and construct validity of the instruments, the exploratory factor analysis was used for each construct. Table 1 shows the results of the procedure. For want of space, the item means and factor loadings could not be displayed. However, a summary of the results to support the construct validity of the scale is reflected in Table 1.

Table 1

Summary of the Confidence and Construct Validity Results of the Instruments

Scales	Explained Variance	Cronbach's Alpha	Kaiser-Meyer-Olkin Measure of Sampling Adequacy	Bartlett's Test of Sphericity
Self-Perceived Employability	53.57%	.876	.903	6507.71*
Self-Regulated Learning	53.86%	.935	.954	17453.32*
Academic Self-Efficacy	48.41%	.889	.918	1473.540*
Career Decision Self-Efficacy	61.08%	.940	.967	14397.84*

*p<.05

The confidence calculation of scores obtained from each scale was performed by applying the internal consistency method, and the values of Cronbach's alpha are presented as follows: .876 for self-perceived employability; .935 for self-regulated learning; .889 for academic self-efficacy and .940 for career decision self-efficacy. These figures denote that the indicators identified are reliable measures of the construct.

To establish construct validity, exploratory factor analysis was also conducted and the Kaiser-Meyer-Olkin measure of sampling adequacy reached the value of .903(self-perceived employability); .954 (self-regulated learning); .918 (career decision self-efficacy). These figures imply that there was adequate sampling. Furthermore, the factor analysis yielded Bartlett's Test of Sphericity expressed in chi-square significant values that are less than .05, establishing that the correlation matrices are not identity matrices. Likewise, the factor weights are explained by the total variances (Ferrando in Alegre, 2014). The above data show that the scales used in this study possessed construct validity.

Normality Measures and Descriptives. Table 2 shows the normality measures, mean of the means for each variable with standard deviations and descriptions of the participants' responses. Skewness and kurtosis values of the constructs are highly acceptable as these are within the accepted ± 2 range. Most of the values are less than one and nearing zero, except for career decision self-efficacy which is 1.142. The modified instrument used a 5-point scale with 5 as the highest and 1 as the lowest.

Table 2

Normality Measures, Means, Standard Deviation, and Descriptions

Variables	S*	K**	Mean	SD	Descriptions
Self-Perceived Employability	-.460	.968	4.10	.49	Moderately Aware
Self-Regulated Learning	-.294	-.343	3.97	.49	Often
Academic Self-Efficacy	-.380	.104	3.95	.51	Somewhat true to me
Career Decision Self Efficacy	-.809	1.142	3.92	.63	Much Confidence

(n=1,509); *Skewness; **Kurtosis

The table further shows that although *self-perceived employability* (M=4.10, SD =.49) was rated by the Grade 12 completers with the highest mean score, it is described as 'moderately aware' implying that generally the participants had moderate belief of their capability to get through sustainable employment. This study used the Rothwell, Herbert and Rothwell (2008) Self-Perceived Employability Model where there were four components: self-belief, the state

of external labor market, one’s alma mater and one’s field of study. For self-belief, item on “*I am generally confident of success in job interviews and selection events*” scored lowest in the study 3.97, SD=.72. Nevertheless, the item indicator “*the degree I will pursue leads to a specific career that’s generally perceived as highly desirable*” had the highest mean score of 4.20, SD =.70, although still described as ‘moderately aware.’ This finding resonated with the participants’ disclosures when asked during the focus group discussion that if *there are chances for them to get a job, would they be ready for work?* Out of 64 participants, there were 23 of them who responded that they were not ready for work and 10 of them were uncertain of their responses. More than 50 percent or 34 claimed that they were prepared for work. The result of the focused group discussion evidently supports the moderate belief of the participants of their capability to get sustainable employment. Even if the finding on self-perceived employability is only moderate, there is the possibility of occurrence of the self-belief phenomenon emphasizing person’s belief on one’s skills and behavior; and sense of understanding of one’s attributes relating to job knowledge and skills mastery Rothwell, Jewell, and Hardie (2009); and personal confidence and efficacy as posited by Rothwell et al. (2008). Nevertheless, there is a need to look into the factor which influences self-perceived employability so that appropriate measures to develop self-perceived employability in the lived experience of students in school can be addressed.

Table 3

Zero-Order Correlations of Variables

Variables	1	2	3	4
1. Self-Perceived Employability	1			
2. Self-Regulated Learning	.449**	1		
3. Academic Self-Efficacy	.396**	.834**	1	
4. Career Decision Self Efficacy	.413**	.450**	.412**	1

** . Correlation is significant at the 0.01 level (2-tailed)

The zero-order correlation of variables in Table 3 shows the significant relationship of self-perceived employability to self-regulated learning ($r=.449$, $p=.000$); to academic self-efficacy ($r=.396$, $p=.000$) and to career decision self-efficacy ($r=.413$, $p=.000$). The data suggest that self-perceived employability is significantly linked with self-regulated learning, academic self-efficacy, and career decision self-efficacy. In some employability research, self-efficacy is regarded as one of its components (Knight & Yorke, 2004; Pool & Sewell, 2007). Self-efficacy is one of the important traits that give access to employability (McArdle et al.,

2007). Employability, then, could be influenced by self-efficacy (Zimmerman, 2010). Lu (2016) also cited a number of studies that reported self-efficacy to be associated with gaining re-employment (Hillage, & Pollard, 1998; McArdle & et al., 2007; Pinguart, Juang, & Silbereisen, 2003; Regenold, Sherman, & Fenzel, 1999; Vinokur & Schul, 2002). Moreover, self-regulated learning is regarded as an important skill in career development which can enhance students' perceptions of the academic and occupational competencies needed in a highly skilled work force (Lapan, 2004). It is the confidence enacted when making effective career decisions and generating positive outcomes in relation to career development roles. These roles include competencies regarding accurate self-evaluation, collecting information about vocations, goal setting, planning and problem-solving (Betz, 2000), which are also basic of academic processes. Seeing the critical role of self-regulated learning in career development, the researchers use this premise to assume that self-regulated learning can be associated with self-perceived employability.

To determine the influencing factors of self-perceived employability, Table 4 shows the result of the stepwise regression analysis between the independent variables (self-regulated learning, academic self-efficacy and career decision self-efficacy) and self-perceived employability.

Table 4

Multiple Linear Regression Analysis between the Independent Variables and Self-Perceived Employability (SPE)

Independent Variables	Regression Coefficients	t-value	P-Value
Self-Regulated Learning (SRL)	.329	13.251	.000
Career Decision Self Efficacy (CDSE)	.208	10.647	.000

Dependent variable: Self-perceived employability (SPE)

Constant :	1.983
Adjusted R ² :	0.256
F-Value	261.009
Sig. Level	0.000

The adjusted R² value explains the amount of influence of *self-regulated learning* and *career decision efficacy* taken as one, on self-perceived employability. This indicates that 25.6% of the change in self-perceived employability could be attributed to the two variables. With f-value of 261.009, the model is highly

significant at 0.000. Thus, the two independent variables can explain and or predict the *self-perceived employability*. The final model is represented as:

$$\text{SPE} = 1.983 + 0.329 \text{ SRL} + 0.108 \text{ CDSE}$$

Moreover, the data in the table disclose that for every unit change in the self-regulated learning, there is a corresponding increase of 0.329 or 32.9% in the self-perceived employability. This further means that the higher the self-regulated learning of students, the higher would be their self-perceived employability.

This finding is in consonance with the postulation of McArdle et al. (2007) espousing that self-efficacy is one of the important traits that give access to employability. The authors likewise advanced that employability is influenced by self-efficacy. Furthermore, self-regulated learning is considered an important skill in career development which can enhance students' perceptions of the academic and occupational competencies needed in a highly skilled work force (Lapan, 2004).

The table further disclosed the coefficient that implies of every unit of increase in the graduate career decision self-efficacy; there is a corresponding increase of 0.208 or 20.8% in the self-perceived employability. This also means that the higher the graduate-respondents' career decision self-efficacy, the higher would be their self-perceived employability. This finding finds support in the supposition of Dogan (2015) which emphasized career decision self-efficacy as making a choice for a profession or a job which can generate positive outcomes in career development roles; hence, it is more likely to happen that learners who have higher self-efficacy will have higher tendency to have strong beliefs of their capacity for gainful employment.

CONCLUSIONS

The completer-respondents in this study have attained certain levels of cognitive and psychosocial dispositions that can be characterized of their hesitance to enter the world of work whether on full time or part time basis. Given the backdrop of the K-12 Program, which expects that after completion, these students although may pursue college work can also be capable of gainful employment. The moderate assessment for self-perceived employability leaves a gap for higher education institutions to address so that students while studying, their readiness to be in a gainful employment will also be in place. Thus, it is incumbent for the Basic Education system to strengthen the K-12 Program to

enhance the completers' self-regulated learning which is a strong predictor of self-perceived employability.

RECOMMENDATIONS

Given that scales that have undergone rigid construct validity and reliability measures, the instrument generated in this study, may be considered a contribution to the field of institutional research in education. Nevertheless, since the study is limited only to the cognitive and psychosocial dispositions of the K to 12 completers, an expanded study may be considered to include predictors of evidences of learning outcomes to a much wider population considering geographical scope for wider generalizability.

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