Exploring Self-efficacy, Research, and Teaching Skills among Undergraduate Thesis Advisers

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Originality: 100% • Grammarly Score: 99% • Plagiarism: 0%

ABSTRACT

Research is now an active part of the academe. This descriptive-correlational study utilizing the purposive sampling technique was conducted to determine the level and relationships of self-efficacy, teaching skills, and research skills among the undergraduate thesis advisers of NIPSC-BVC. Using Hoy and Woolfolk's (1993) Teacher Efficacy Scale and Research Skills and Teaching Skills Assessment Instruments, data were collected. Mean, ANOVA, Pearson's r, and t-test were used in the analysis of data. Results revealed that the general teaching efficacy of the respondents is good while personal teaching efficacy is very good. The level of teaching skills of respondents' ages 40-49 and 11-20 years of teaching experience is excellent, while respondents' aged 20-39, 50 and above, with 0-10 and 21 or more years in service, possess the strong ability. Results also showed that agriculture thesis advisers have strong teaching skills while education respondents are excellent. A significant correlation was observed between respondents' general teaching efficacy and teaching skills, research and teaching skills, and general teaching efficacy and research skills. The respondents' level of general teaching efficacy, when grouped according to age and teaching skills according to the department, showed a significant difference. Based on the results of the

study, instructional and research capability-building activities that enhance the respondents' self-efficacy, research skills, and teaching skills were proposed and conducted.

Keywords **—** Descriptive-correlational, education, research skills, self-efficacy, teaching skills, Philippines

INTRODUCTION

Research has been given meaning by many scholars and authors (Burns & Grove, 2017; Creswell, 2017). David (2017) mentioned that research is a high-hat word that scares many people. Research has become an active part of the teachers' and students' lives in the educational system. However, as individuals with so many concerns facing many challenges in both academic and personal aspects, they must be enthusiastic and determined enough to overcome these problems. In short, there are unexpected difficulties and problems (Trimmer, 2003), and they may lead to delayed submissions, if not academic failures. The kind of advisers they have in this academic endeavor has something to do with the quality of research outputs the students could give.

According to Logan (1991), personal problems could occupy some cognitive capacity and affect academic pursuits. Occasionally, the best solution to a problem depends on what causes it, in which case, one has to discover why the problem arises. Meaning, several factors may be considered that could affect the process of writing research of the students. One of which is how the thesis advisers guide these undergraduate researchers in the process of writing researches.

In the local and international communities, many researchers have investigated teacher self-efficacy. For example, teacher self-efficacy showed that teacher self-efficacy moderates the effect of learner-centeredness on effective teaching characteristics (Magno, 2007). It is consistently related to positive teaching behavior and strong learner achievement. Learners tend to learn betters from teachers with a high sense of self-efficacy (Brouwers & Tomic, 2003; Henson, 2001; Ross & Bruce, 2007). Teaching skills is another construct concerning self-efficacy (Cooper-Hakim & Viswesvaran, 2005). In addition, several researches also were able to deal with knowledge on research skills among teachers (Meerah et al., 2011).

Several studies were also conducted on teaching skills (Department of Education, 2012; Doherty & Jacobs, 2013; Mourshed et al., 2010; Welsh & Schaffer, 2017) using various instruments (Danielson, 2013; Pianta,

La Paro, & Hamre, 2008; Organisation for Economic Co-operation and Development, 2013, 2014; Teddlie et al., 2006). Nevertheless, most of these studies focused on evaluating teaching skills rather than exploring their relationship with other factors.

In the Philippines through the Department of Budget and Management National Budget Circular No. 461 included research to be one of the components in the composition and classification plan for faculty positions. Similarly, like other countries, this serves as one of the criteria for moving up the hierarchy from one position to the next engagement (Katz & Coleman, 2001). Being a researcher himself/herself can help a lot in how research advisers teach and deal with his/her advisees. In the study of Madan and Teitge (2013), they cited that awareness is the key to success in engaging the undergraduate students in research, that exposure to research can increase the likelihood of becoming successful researchers in the future.

Northern Iloilo Polytechnic State College-Barotac Viejo Campus is a state college in the northern part of Iloilo, Philippines, which offers courses with undergraduate thesis writing such as Bachelor of Science in Agriculture, Bachelor of Elementary Education, and Bachelor of Secondary Education. According to Bocar (2013), research is tedious and tiring; however, teachers and students cannot get away from this work because this is an academic requirement. This study was conducted to determine the levels and explore the relationship of self-efficacy, teaching skills, and research skills of the undergraduate thesis advisers of Northern Iloilo Polytechnic State College. The results of the study served as the basis for planning, proposing, and conducting capability-building activities that could help enhance the self-efficacy, teaching, and research skills of respondents.

FRAMEWORK

In this study, self-efficacy, teaching skills, and research skills will be considered as representations of the many factors that contribute to the quality and productiveness of the research outputs of undergraduate thesis advisers.

This study will be anchored on Bandura's (2000) Social Cognitive Theory of Self-efficacy, which states that "self-efficacy is the personal belief that one is capable of performing appropriately and effectively to attain the certain goal" (Ormrod, Anderman, & Anderman, 2006). Self-efficacy beliefs influence through patterns and emotions, which, in turn, enable or inhibit actions. It exists in many domains of human functioning, including both professional and private behavior. Thus, exploring the degree of relationship of self-efficacy, teaching

skills, and research skills of the undergraduate thesis advisers is very empirical.

In this study, the age of the undergraduate thesis advisers, department where the respondents belong, and length of service serves as the independent variables. The level of self-efficacy, teaching skills, and research skills are the dependent variables.
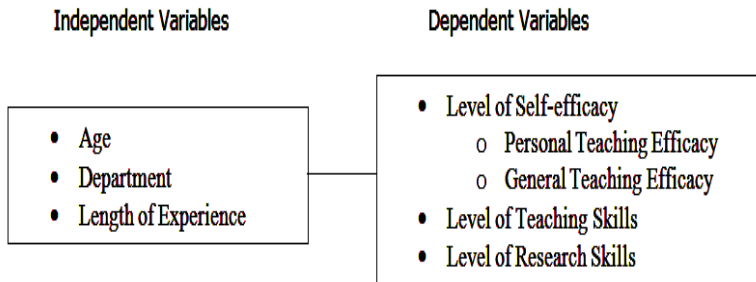

Figure 1. Research Framework of the Study

OBJECTIVES OF THE STUDY

This study is conducted to determine the level and explore the relationship between self-efficacy, teaching skills, and research skills among the undergraduate thesis advisers at Northern Iloilo Polytechnic State College-Barotac Viejo Campus in the northern part of the Province of Iloilo, Philippines. Specifically, this study has the following objectives, (1) determine the level of self-efficacy of the respondents of NIPSC-BVC in their: personal teaching efficacy and general teaching efficacy, (2) identify the level of teaching skills of the respondents when classified according to age, department, and length of experience as teachers, (3) identify the level of research skills of the respondents when classified according to age, department, and length of experience as teachers, (4) interpret the significant relationship between the level of self-efficacy, and teaching skills, level of teaching skills and research skills, and level of self-efficacy and research skills, and (5) determine the significant difference in the respondents the level of self-efficacy, teaching skills, and research skills when grouped according to age, department, and length of service.

METHODOLOGY

This descriptive-correlational study was conducted in NIPSC-Barotac Viejo Campus utilizing the purposive sampling technique in selecting the respondents of the study. Twenty-three faculty members who are undergraduate thesis advisers served as the respondents of the study. The following instruments were utilized in this study: The Teacher Efficacy Scale by Hoy and Woolfolk (1993), the Teaching Skills Assessment, and Research Skills Assessment Form by Meerah et al. (2011).

A descriptive correlational study was utilized in this study to describe the variables and the relationships that occur naturally between and among them (Creswell, 2002). The purposive sampling technique was used by the researcher in the selection of the respondents of the study. According to Black (2011), the purposive sampling technique is a non-probability sampling method, and it occurs when elements selected for the sample are chosen by the judgment of the researcher. In this study, faculty members of NIPSC-BVC who are undergraduate thesis advisers were chosen as respondents of the study.

The procedure of the study was divided into three phases: Phase I was the identification of the respondents, securing approval from the administrator, and negotiating with the heads of offices and respondents on schedule and overview of the research process; Phase II was the research proper. This included the conduct of Woolkfolk-Hoy Teacher Efficacy Scale (1993), Meerah et al. (2011) Research Skills Assessment, and Teaching Skills Assessment among the respondents; and Phase III was the analysis and making sense of the data collected. For data analysis, Mean, Pearson's r, ANOVA and t-test were utilized as statistical tools.

RESULTS AND DISCUSSION

Respondents' Level of Self-efficacy

The first objective of the study is to determine the level of self-efficacy of the respondents: General Teaching Efficacy (GTE) and Personal Teaching Efficacy (PTE). As shown in table 1, the respondents' level of general teaching efficacy is *good* (M=3.16) while the personal teaching efficacy is *very good* (M=1.90). The result conforms to the study of Hoy and Woolfolk (1993) on self-efficacy. The thesis advisers' general beliefs about the power of teaching to reach difficult children and teachers' attitudes toward education are good, and their beliefs that they possess teaching skills that lead to desirable student outcomes are very good.

Table 1. Mean Scores on the Level of Self-Efficacy of the Respondents

Variables	n	Mean	Description
General Teaching Efficacy	23	3.16	Good
Personal Teaching Efficacy	23	1.90	Very Good

Efficacy scale: 1.00-1.83=excellent, 1.84-2.66=very good, 2.67-3.50=good, 3.51-4.33=fair, 4.34-5.16=poor, 5.17-6.00=very poor

Level of Teaching Skills According To Age, Department, and Length of Experience

As shown in table 2, the level of teaching skills of the respondents' ages 40-49 is *excellent* while the rest are *strong*. This conforms to the study of Unal and Unal (2012), which found older teachers of age 41 years old and above are more effective in teaching and good in classroom management skills than younger teachers in high school. This view is supported by Aloka and Bojuwoye (2013), who found that younger teachers often make more risky decisions and do not analyze the context carefully when dealing with students' disciplinary problems due to the lack of experience and immaturity compared to the older teachers. Furthermore, the level of teaching skills of the agriculture respondents is *strong (M=4.50),* while the TED respondents are *excellent (M=5.17).* Moreover, the level of teaching skills of the respondents with 11-20 years of teaching experience is *excellent*, while the rest is strong. The same result was found in Sadik and Akbulut (2015) study, which shows that teachers with a minimum of ten years of teaching experience are more effective in teaching.

Table 2. Mean Scores on the Level of Teaching Skills of the Respondents When Classified According To Age, Department, and Length of Experience

Variables	n	Mean	Description
Age			
20-29	4	4.90	Strong
30-39	8	4.72	Strong
40-49	8	5.18	Excellent
50 or above	3	4.70	Strong
Department			
Agriculture	9	4.50	Strong
TED	14	5.17	Excellent

Variables	n	Mean	Description
Length of Experience			
0-10	12	4.86	Strong
11-20	5	5.22	Excellent
21-30	4	4.84	Strong
above 30	2	4.55	Strong

Teaching scale: 1.00-1.83=Not Applicable, 1.84-2.66=No Skills at all, 2.67-3.50=Weak, 3.51-4.33=Moderate, 4.34-5.16=strong, 5.17-6.00=excellent

Level of Research Skills According To Age, Department, and Length of Experience

The third objective of the study is to determine the level of research skills of the respondents according to age, department, and length of experience. As shown in table 3, the level of research skill of the respondents is all at a strong level regardless of the age, department, and length of service. The result of the study is in contrast with the study of Caingcoy (2020), which shows that the research skills of teachers had a low, negative but significant relationship with their age and accumulated years of service. Their research skills deteriorate as they age and accumulate years of service.

Table 3. Mean Scores on the Level of Research Skills of the Respondents When Classified According To Age, Department and Length of Service

Variables	n	Mean	Description
Age			
20-29	4	4.68	Strong
30-39	8	4.62	Strong
40-49	8	4.88	Strong
50 or above	3	4.67	Strong
Department			
Agri.	9	4.45	Strong
TED	14	4.90	Strong
Length of Experience			
0-10	12	4.68	Strong
11-20	5	5.04	Strong
21-30	4	4.58	Strong
above 30	2	4.50	Strong

Research scale: 1.00-1.83=Not Applicable, 1.84-2.66=No Skills at all, 2.67-3.50=Weak, 3.51-4.33=Moderate, 4.34-5.16=strong, 5.17-6.00=excellent

Relationship between Self-efficacy and Teaching skills

As reflected in table 4, results of bivariate correlation between personal teaching efficacy and teaching skills showed an inverse and non-significant correlation (r=-.005, p=.982>.05). Meaning PTE and teaching skills have no significant relationship. However, the bivariate correlation between GTE and teaching skills shows a significant correlation (r=.511, p=.013<.05). A significant relationship was observed between the two variables.

Table 4. Results of the bivariate correlation between Self Efficacy and Teaching Skills

		Personal Teaching Efficacy	General Teaching Efficacy	Teaching Skills
PTE				
	Pearson Correlation	1	-.005	-.082
	Sig. (2-tailed)		.982	.711
GTE				
	Pearson Correlation	-.005	1	.511*
	Sig. (2-tailed)	.982		.013
TS				
	Pearson Correlation	-.082	.511*	1
	Sig. (2-tailed)	.711	.013	

Relationship between Research Skills and Teaching Skills

One of the fourth objectives of the study is to determine the relationship between research skills and the teaching skills of the respondents. As reflected in table 5, results of bivariate correlation between research skills efficacy and teaching skills show a significant correlation (r=.824, p=.000<.05). There is a significant relationship between research skills and teaching skills.

Table 5. Results of the bivariate correlation between Teaching Skills and Research Skills

		Research Skills	Teaching Skills
RS			
	Pearson Correlation	.824**	1
	Sig. (2-tailed)	.000	
TS			
	Pearson Correlation	1	.824**
	Sig. (2-tailed)		.000

Relationship between Self-efficacy and Research Skills

The last part of the fourth objective of the study is to determine the relationship between self-efficacy and the research skills of the respondents. As reflected in table 6, results of bivariate correlation between personal teaching efficacy and research skills showed an inverse and non-significant correlation (r=-.022, p=.921>.05). Meaning no significant relationship was observed between the two variables. However, the bivariate correlation between general teaching efficacy and research skills shows a significant correlation (r=.443, p=.034<.05). GTE and research skills show a significant relationship.

Table 6. Results of the bivariate correlation between Self Efficacy and Research Skills

		Research Skills	Personal Teaching Efficacy	General Teaching Efficacy
RS				
	Pearson Correlation	1	-.022	.443*
	Sig. (2-tailed)		.921	.034
PT				
	Pearson Correlation	-.022	1	-.005
	Sig. (2-tailed)	.921		.982
GT				
	Pearson Correlation	.443*	-.005	1
	Sig. (2-tailed)	.034	.982	

Comparisons on the level of Personal teaching efficacy

The last objective of the study is to determine the significant difference in the level of self-efficacy, teaching skills, and research skills according to age,

department, and length of service. As shown in table 6, the result of the study reveals that there is no significant difference in the level of self-efficacy according to age and length of service (F=1.05, p=.394>.05) for the age and (F=1.10, p=.375>.05) for the length of service. This means that regardless of the age and length of service, the level of personal teaching efficacy is equal.

Comparisons on the level of General teaching efficacy

Referring to Tables 6 and 7, the result of the study reflects a significant difference in the level of general teaching efficacy of the respondents according to age (F=3.378, p=.040<.05). Meaning, respondents aged 40-49 have a higher level of general teaching efficacy than respondents ages 50 and above counterparts. Furthermore, the result also shows that the respondents' level of general teaching efficacy according to the length of experience did not significantly differ (F=2.712, p=.074>.05). This means that the level of general teaching efficacy is the same regardless of the length of experience.

Comparisons on the level of Self-efficacy according to Department

As reflected on the result of the t-test for independent samples, table 6 shows that the level of self-efficacy of the respondents did not significantly differ between departments in two categories (t=-.586, p=.554>.05) for PTE and (t=1.761, p=.093>.05) for GTE. Meaning that the level of self-efficacy is equal regardless of what department they belong.

Table 6. Summary of the results on Analysis of Variance of Personal Teaching Efficacy (PTE) when grouped according to age and length of experience

		n	Mean	F	Sig. (2-tailed)
Age					
	20-29	4	1.65_a		
	30-39	8	2.13_a	1.05^{ns}	.394
	40-49	8	1.83_a		
	50 or above	3	1.87_a		
Length of Experience					
	0-10	12	1.95_a		
	11-20	5	1.60_a	1.10^{ns}	.375
	21-30	4	2.15_a		
	30 or above	2	1.90_a		

Table 7. Summary of the results on Analysis of Variance of General Teaching Efficacy (GTE) when grouped according to age and length of experience

		n	Mean	F	Sig. (2-tailed)
Age					
	20-29	4	2.45ab		
	30-39	8	3.43ab	3.378	.040
	40-49	8	3.68a		
	50 or above	3	2.00bc		
Length of Experience					
	0-10	12	2.97a		
	11-20	5	4.20a	2.712	.074
	21-30	4	2.80a		
	30 or above	2	2.40a		

Table 8. Summary of the results on independent sample t-test of Self-efficacy when grouped according to Department

		n	Mean	T	Sig. (2-tailed)
PTE					
	Agriculture	9	1.98	-.586	.554
	TED	14	1.86		
GTE					
	Agriculture	9	2.69	1.761	.093
	TED	14	3.46		

Comparisons of teaching skills according to age and length of experience

As reflected in table 9, the result of the Analysis of Variance shows that the level of teaching skills did not significantly differ regardless of the age (F=.618, p=.612>.05) and length of experience (F=.829, p=.494>.05). The result of the study simply shows that the level of teaching skills is the same regardless of the age and length of experience of the respondents.

Table 9. Summary of the Results on Analysis of Variance of Teaching Skills When Grouped According to Age and Length of Experience

		n	Mean	F	Sig. (2-tailed)
Age					
	20-29	4	4.90		
	30-39	8	4.72	.829	.494
	40-49	8	5.18		
	50 or above	3	4.70		
Length of Experience					
	0-10	12	4.86		
	11-20	5	5.22	.618	.612
	21-30	4	4.84		
	30 or above	2	4.55		

Comparisons of Research Skills According To Age and Length of Experience

Table 10 shows that the level of research skills did not significantly differ regardless of age (F=.278, p=.841>.05) and length of experience (F=.728, p=.548>.05). The result of the study simply shows that the level of research skills is the same regardless of the age and length of experience of the respondents.

Table 10. Summary of the results on Analysis of Variance of research skills when grouped according to age and length of experience

		n	Mean	F	Sig. (2-tailed)
Age					
	20-29	4	4.68		
	30-39	8	4.62	.278	.841
	40-49	8	4.88		
	50 or above	3	4.67		
Length of Experience					
	0-10	12	4.68		
	11-20	5	5.04	.728	.548
	21-30	4	4.58		
	30 or above	2	4.50		

Comparisons on the Level of Teaching Skills and Research Skills According to the Department

As reflected on the result of the t-test for independent samples, table 11 shows that the level of Research skills of the respondents did not significantly differ between departments (t= 2.00, p=.058>.05), which means that the level of research skills is equal regardless of where department they belong. Furthermore, the result also revealed that teaching skills significantly differ between departments (t=2.81, p=.010<.05), which means that TED thesis advisers have a higher level of teaching skills than their agriculture department counterparts.

Table 11. Summary of the results on independent sample t-test of Research skills and Teaching skills when grouped according to Department

		n	Mean	T	Sig. (2-tailed)
RS					
	Agriculture	9	4.45	2.00^{ns}	.058
	TED	14	4.90		
TS					
	Agriculture	9	4.50	2.81	.010
	TED	14	5.17		

CONCLUSIONS

Based on the results of the study, it was concluded that the personal beliefs of the undergraduate thesis advisers to teach as a person are greater than their general belief on the power of teaching. To some extent, teachers who possess firmer beliefs about the organization where they are employed also have higher skills in managing students' learning and managing students' discipline as well as their concerns about learners' progress. These teachers are also active in engaging in research activities and in conducting research studies. Teachers who possess good skills in teaching will eventually also have good research skills, and vice versa, maybe because they possess teaching skills that are useful in the conduct of researches, especially in the process of data gathering. However, TED respondents have a higher level of teaching skills than their agriculture counterparts. This might be because Teacher Education respondents are more exposed to various teaching approaches, strategies, methods, and techniques. This study was limited to the faculty members of NIPSC-BVC who served as undergraduate thesis advisers

during the time of the conduct of the study. Exploring the level and relationship of the respondents' self-efficacy, teaching skills, and research skills was the main objective of this study. Based on the research findings, it was recommended that enhancement programs/research capability-building activities might planned, proposed, and implemented to help increase the respondents' self-efficacy, research, and teaching skills. Further, undergraduate thesis advisers may discover and carry out research advising methods and techniques which can help them develop a high level of self-efficacy. This will help students a lot in producing quality researches. Lastly, other researchers may try conducting similar studies involving more respondents in a wider scope to explore better undergraduate thesis advisers' self-efficacy, teaching skills, and research skills.

LITERATURE CITED

Aloka, P. J., & Bojuwoye, O. (2013). Gender, age and teaching experiences differences in decision-making behaviours of members of selected Kenyan secondary school disciplinary panels. Retrieved from https://repository.uwc.ac.za/handle/10566/922

Bandura, A. (2000). Self-efficacy: The foundation of agency. *Control of human behavior, mental processes, and consciousness: Essays in honor of the 60th birthday of August Flammer*, *16*. Retrieved from https://bit.ly/3yQstN1

Black, K. (2011). *Business statistics: for contemporary decision making*. John Wiley & Sons. Retrieved from https://bit.ly/3pVHjB0

Bocar, A. C. (2013). Difficulties Encountered by the Student-Researchers and the Effects on their Research Output. Research Gate. Retrieved from https://bit.ly/3E2HqiT

Brouwers, A., & Tomic, W. (2003). A test of the factorial validity of the teacher efficacy scale. *Research in Education*, *69*(1), 67-79. Retrieved from https://doi.org/10.7227/RIE.69.6

Burns, N. & Grove, S. (2011). Nursing research, building evidences-based practices. 5th Edition. USA: Elsevier Saundiers. Retrieved from https://bit.ly/3BPQzJN

Caingcoy, M. (2020). Research Capability of Teachers: Its Correlates, Determinants and Implication for Continuing Professional Development. *Determinants and Implication for Continuing Professional Development (June 20, 2020)*. Retrieved from http://dx.doi.org/10.2139/ssrn.3631867

Cooper-Hakim, A., & Viswesvaran, C. (2005). The construct of work commitment: testing an integrative framework. *Psychological bulletin*, *131*(2), 241. Retrieved from https://doi.org/10.1037/0033-2909.131.2.241

Creswell, J. (2002). Educational research: Planning, conducting, and evaluating Quantitative and Qualitative research. Upper Saddle River, NJ: Merrill Prentice Hall. Retrieved from https://bit.ly/3mpQ2cJ

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications. Retrieved from https://bit.ly/3ySwvVl

Danielson, C. (2013). *The framework for teaching evaluation instrument*. Retrieved from https://bit.ly/3l6yhgv

David, F. (2017). Identifying and Doing Research: A Handbook for Beginners. Panorama Printing Inc. Jaro, Iloilo City. Philippines. Retrieved from https://bit.ly/3l6pf3c

Department for Education. (2012). Teacher Appraisal and Capability: A Model Policy for Schools. Retrieved from https://bit.ly/2YvFSxz

Doherty, K. M., & Jacobs, S. (2013). State of the States 2013: Connect the Dots--Using Evaluations of Teacher Effectiveness to Inform Policy and Practice. *National Council on Teacher Quality*. Retrieved from https://eric.ed.gov/?id=ED565882

Henson, R. K. (2001). Teacher self-efficacy: Substantive implications and measurement dilemmas. Retrieved from https://eric.ed.gov/?id=ED452208

Hoy, W. K., & Woolfolk, A. E. (1993). Teachers' sense of efficacy and the organizational health of schools. *The elementary school journal*, *93*(4), 355-372. Retrieved from https://doi.org/10.1086/461729

Katz, E., & Coleman, M. (2001). The growing importance of research at academic colleges of education in Israel. *Education+ Training*. Retrieved from https://doi.org/10.1108/EUM0000000005423

Logan, F. A. (1991). College Learning: Ways & Whys. Retrieved from https://bit.ly/3DWucV6

Madan, C. R., & Teitge, B. D. (2013). The benefits of undergraduate research: The student's perspective. *The mentor: An academic advising journal*, *15*, 1-3. Retrieved from https://bit.ly/38LinCK

Magno, C. (2007). The role of teacher efficacy and characteristics on teaching effectiveness, performance, and use of learner-centered practices. *The Asia Pacific Education Researcher*, *16*(1). Retrieved from https://ssrn.com/abstract=1427797

Meerah, T. S. M., Osman, K., Zakaria, E., Ikhsan, Z. H., Krish, P., Lian, D. K. C., & Mahmod, D. (2012). Developing an instrument to measure research skills. *Procedia-Social and Behavioral Sciences*, *60*, 630-636. Retrieved from https://doi.org/10.1016/j.sbspro.2012.09.434

Mourshed, M., Chijioke, C., & Barber, M. (2010). How the world's most improved systems keep getting better. New York, NY: McKinsey & Co. Retrieved from https://bit.ly/3nd62ja

OCDE, O. (2014). *TALIS 2013 results: An international perspective on teaching and learning*. Oecd Publishing. Retrieved from https://doi.org/10.1787/23129638

Organisation for Economic Co-operation and Development. (2013). *PISA 2012 results in focus: What 15-year-olds know and what they can do with what they know*. Paris, France: Author. Retrieved from https://bit.ly/2X1QL9z

Ormrod, J. E., Anderman, E. M., & Anderman, L. H. (2016). *Educational psychology: Developing learners*. Pearson. Retrieved from https://bit.ly/38Pl8mu

Pianta, R. C., La Paro, K. M., & Hamre, B. K. (2008). *Classroom Assessment Scoring System™: Manual K-3*. Paul H Brookes Publishing. Retrieved from https://bit.ly/3A0mh6Q

Republic of the Philippines, Department of Budget and Management National Budget Circular NO. 461 dated June 1, 1998. Retrieved from https://www.dbm.gov.ph/wp-content/uploads/2012/03/NBC-No.-461.pdf

Ross, J., & Bruce, C. (2007). Professional development effects on teacher efficacy: Results of randomized field trial. *The journal of educational research*, *101*(1), 50-60. Retrieved from https://doi.org/10.3200/JOER.101.1.50-60

Sadik, F., & Akbulut, T. (2015). An evaluation of classroom management skills of teachers at high schools (Sample from the city of Adana). *Procedia-Social and Behavioral Sciences*, *191*, 208-213. Retrieved from https://doi.org/10.1016/j.sbspro.2015.04.539

Teddlie, C., Creemers, B., Kyriakides, L., Muijs, D., & Yu, F. (2006). The international system for teacher observation and feedback: Evolution of an international study of teacher effectiveness constructs. *Educational research and evaluation*, *12*(6), 561-582. Retrieved from https://doi.org/10.1080/13803610600874067

Trimmer, J. F. (2003). Writing with a Purpose. Ball State University. Retrieved from https://bit.ly/3ySgsXI

Unal, Z., & Unal, A. (2012). The Impact of Years of Teaching Experience on the Classroom Management Approaches of Elementary School Teachers. *Online Submission*, *5*(2), 41-60. Retrieved from https://eric.ed.gov/?id=ed533783

Welsh, K. A., & Schaffer, C. (2017, July). Developing the effective teaching skills of teacher candidates during early field experiences. In *The Educational Forum* (Vol. 81, No. 3, pp. 301-321). Routledge. Retrieved from https://doi.org/10.1080/00131725.2017.1314574