Short Paper

Professional Development and Classroom Assessment Practices of University Faculty in the "New Normal"

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Abstract

The global health pandemic brought by COVID-19 has radically changed the teaching and learning process of today's education. Aside from the instructional process, classroom assessment is also greatly affected by the change in the mode of teaching and learning in the new normal. This study investigated the impact of professional development on the classroom assessment practices of the faculty of the College of Teacher Education in the new normal using a nonparametric approach. Hypotheses of the study were tested using nonparametric statistical tools such as Spearman rho, Kruskal-Wallis, and Jonckheeree Terpstra test. The study concluded that the level of classroom assessment practices across all factors is significantly influenced by the years of teaching experiences as well as the highest educational attainment of the faculty. Results also supported the impact of professional development on classroom assessment practices and reported a positive trend whereby a higher number of years of teaching experiences and higher educational attainment results in higher levels of classroom assessment practices. The implications of this result are discussed.

Keywords – classroom assessment practices, nonparametric approach, professional development, education in the new normal

INTRODUCTION

COVID pandemic has drastically shaped the educational system nowadays. The continuous lockdowns and quarantine periods happening around the Philippines discontinued the traditional face-to-face learning mode. In response to these situations, the higher education sector through the Commission on Higher Education (CHED) was given the academic freedom to implement available distance learning, e-learning, and other alternative modes of learning (CHED, 2020). Furthermore, it has highlighted online learning and blended learning modality as a viable mode of instruction in the new normal. Printed and online modules, virtual classes, recorded videos and podcasts, radio broadcasts, and television shows were some of the modes of instruction the country has adapted to cope with the new normal in the educational system.

The current modalities created new trends in the instructional materials used, instructional processes, and classroom assessment. Technology and logistics aid the creation and distribution of instructional materials for distance learning. However, classroom assessment at present creates a further challenge to educators at all levels of education. It is an important part of the instructional process that encompasses wide scope - assessment for learning, assessment of learning, and assessment as learning (Özdemir-Yilmazer & Ozkan, 2017). Assessment has an important role in education and it has a critical role in the teaching process. Through appropriate assessment, teachers can classify and grade their students, give feedback, and structure their teaching accordingly (Brink & Bartz, 2017). It helps educators to gauge how well the students understand the lesson and make decisions regarding students' progress (Jones & Tanner, 2008; Stiggins, 2008; Nitko & Brookhard, 2007; Murray, 2006; Linn & Miller, 2005). It also allows them to make adjustments to the way they carry out instruction for better students' learning. In addition, assessment data are used by educational practitioners for reporting how well students have learned and how to promote students to a higher level of learning (Bennet & Gitomer, 2009; Sato, Wei & Darling-Hammond, 2008; Vardar, 2010).

The concept of learning-centered teaching involves the effective use of both formative and summative assessments (Khairil & Mokshein, 2018). Assessment for learning also known as formative assessment is supposed to be ongoing monitoring of students' performances on a day-to-day basis, where students must be given timely feedback (Moss & Brookhart, 2019; Ras, Whitelock & Kalz, 2015). However, this cannot be done in the modular approach where two weeks was commonly the duration for accomplishing the tasks in the given modules. On the other hand, in the online modality, there are bigger opportunities for the conduct of these formative assessment activities with the aid of the different online platforms and media that teachers and students can use.

Assessment of learning also known as summative assessment is another challenge for it is what is commonly called major or summative examination, which provides information on how well the students completed the required tasks. In the old normal

where it is commonly done face-to-face, with the students and the facilitator both in one testing area, using a pen-and-paper examination, cases of cheating and other issues of academic dishonesty still existed. The current modalities opened to more concerns of reliability and validity of the given answers in the major examination. The construction of valid and reliable tests is important because it has an impact on the results of assessment scores and the inferences we make from them (Wiliam, 2008).

Moreover, assessment as learning is crucial to help students become life-long learners. This often uses peer, self-assessment, and teacher's feedback also in their works to help them develop efficacy in their works and performances. Students' self-assessment is highly encouraged more so in the new normal where they need to be more self-regulated learners. Activating them to learn to assess themselves is a part of the process of overall learning, in which they can learn to be more responsible with their learning, they can judge in which part they are still lacking and in which part they are progressing (Ratminingsih, Artini & Padmadewi, 2017).

These three classroom assessment approaches pose a real challenge in the new normal. Thus, the present study attempted to determine possible factors that may influence faculty practices of these assessment approaches. Although classroom assessment practices have been widely studied in the pre-pandemic times (Hill, 2017; Özdemir-Yilmazer & Ozkan, 2017; Buabeng, Atingane & Amoako, I., 2019; Shazadiy & Rafa, 2018, Vlachou, 2018), little evidence has shown on the influence of professional development on teachers' classroom assessment approaches. Hence, this study aimed to examine the relationship between professional development and classroom assessment practices in terms of assessment as learning, assessment of learning, and assessment for learning in the new normal. With the significant role of classroom assessment in the process of learning, there is a need to monitor and evaluate classroom assessment practices of the faculty of the College of Teacher Education in the new normal for possible intervention activities to prepare pre-service teachers for a better teaching and learning process in the future.

METHODOLOGY

Study Design

This study used descriptive-correlational methods of research using the nonparametric approach. In this research, professional development indicators such as teaching experience and highest educational attainment were correlated to faculty participants' level of classroom assessment practices.

Study Setting

This study was conducted at the three campuses of Mindoro State College of Agriculture and Technology. Out of the six colleges of the state college, only the College of Teacher Education was purposively chosen as they have undergone pre-service training on educational assessment and evaluation. Faculty teaching professional education, general education, and specialization subjects in tertiary education was chosen as the target population.

Study Participants

The study was conducted on faculty of the College of Teacher Education (CTE) who have experienced teaching online for at least one semester. These participants included faculty who were teaching professional education, general education, and specialization subjects in the Bachelor of Secondary Education, Bachelor of Elementary Education, and Bachelor of Technical and Vocational Teacher Education. All CTE full-time faculty regardless of their employment status were included in the study. Part-time faculty and those returning incomplete surveys were not included in the statistical data analysis. Part-time faculty members were not included as respondents because of their limited teaching load in the college.

Table 1 shows the baseline characteristics of the faculty respondents.

Table 1. Demographic Characteristics of the Study Respondents (n=63)

Characteristics	Frequency	Percentage (%)
Years of Teaching Experiences		
1 to 10 years	27	42.86
11 to 20 years	15	23.81
More than 20 years	21	33.33
Highest Educational Attainment		
Bachelor	11	17.46
Master's	42	66.67
Doctor	10	15.87

Sampling Strategy

Raosoft sample size calculator was used to select the sample size with 95% confidence, 5% margin of error, and population size of 88 university faculty of the College of Teacher Education resulting in 63 samples as representative of the faculty of the College of Teacher Education population of Mindoro State University. Faculty were approached online through Facebook messenger© application by using a nonprobability sampling method.

Study Instrument

The main instrument of study was a standardized Classroom Assessment Practices Scale Questionnaire (CAPSQ) adapted from Gonzales and Callueng (2014). The instrument consists of 2 sections: demographic profile (years of teaching experience and highest educational attainment) and classroom assessment practices consisting of 14 items. This standardized questionnaire has an internal consistency of $\alpha=0.95$ indicating a reliable and valid estimate of classroom assessment practices.

Data Collection

Due to health protocols being enforced by the government, the researchers developed an online Google form of the questionnaire which was shared with the faculty respondents. The Google form was administered through Facebook messenger© application and the participants were requested to fill out the online survey using their available device.

Statistical Analysis

The data from the google form was imported into the Statistical Package for Social Sciences (SPSS) application for statistical treatment. Descriptive statistics such as frequencies, percentages, and medians of the gathered data were used in the data analysis phase. Normality of the data were tested using Kolmogorov-Smirnov Test (p=0.705). This test showed that the gathered data do not follow a normal distribution for scores on classroom assessment practices. Spearman rho was used to determine correlations. The Kruskal–Wallis test was used to compare the classroom assessment practices of the faculty when grouped according to years of teaching experience and highest educational attainment. The Jonckheere–Terpstra test was used to confirm the trend of association.

RESULTS

Faculty Practices of Assessment as Learning

Faculty respondents showed a high level of practice towards using assessment activities to guide students to monitor and reflect their learning and consequently improve their performance in the new normal with a mean score of 3.8494 ± 0.1968.

About 66.7% of the faculty respondents almost always conduct an assessment to guide students in setting their goals and monitoring their learning progress by getting students involved in reviewing their assessment results as a basis for developing their own learning goals and 69.9% use assessment activities to show how to assess their learning such as providing reflection journal tasks where the students can share in writing

what they learn and how they learn in the class. Moreover, about 74.6% of the faculty use assessment to determine how students can learn on their own in class. However, 54% of the faculty do not provide frequent assistance to students in identifying means of getting feedback to monitor their learning process. On the other hand, about 76.2% provide help to students in developing criteria on how they can learn better and 60.3% provide rubrics and other assessment instruments so that students can have the grasp of the quality of performance expected of them and also assess their performance using the set criteria.

Table 2. Assessment as Learning (AsL) Practices

Items	Always n (%)	Frequently n (%)	Occasionally n (%)	Rarely n (%)	Very Rarely n (%)
Guide students to set their goals and monitor their learning progress	25 (39.7)	17 (27.0)	10 (15.9)	11 (17.5)	0 (0)
Demonstrate to students how to do self-assessment	9 (14.3)	35 (55.6)	14 (22.2)	5 (7.9)	0 (0)
Determine how students can learn on their own in class	15 (23.8)	32 (50.8)	13 (20.6)	3 (4.8)	0 (0)
Assist students to identify means of getting personal feedback and monitoring their learning process	21 (33.3)	8 (12.7)	23 (36.5)	11 (17.5)	0 (0)
Help students develop clear criteria of a good learning practice	25 (39.7)	23 (36.5)	12 (19.0)	3 (4.8)	0 (0)
Set the criteria for students to assess their performance in class	16 (25.4)	22 (34.9)	20 (31.7)	5 (7.9)	0 (0)

Assessment for Learning Practices

Faculty respondents exhibited better practice of formative assessment activities in the new normal as attested to by the mean score of 4.0317 ± 0.2059. More than 80% of the faculty respondents use assessment activities to assist students in improving their learning performance such as providing them with immediate feedback on how they can make better performance. Moreover, about 79.4% do classroom assessments to identify how students can learn better and 76.2% provide assistance in determining students' learning strengths and weaknesses through diagnostic and placement tests. However, only 69.8% use assessment to collect learning data that improve the teaching-learning

process. Of the remaining 30.2%, 17.5% of the faculty members practice it occasionally and 12.7% rarely use assessment data to improve the instructional process.

Table 3. Assessment for Learning (AfL) Practices

Items	Always n (%)	Frequently n (%)	Occasionally n (%)	Rarely n (%)	Very Rarely n (%)
Help students improve their learning process and class performance	22 (34.9%)	29 (46.0%)	6 (9.5%)	6 (9.5%)	0 (0%)
Assist students to determine their learning strengths and weaknesses in class	30 (47.6%)	18 (28.6%)	7 (11.1%)	2 (3.2%)	6 (9.5%)
Identify better learning opportunities for students in class	24 (38.1%)	26 (41.3%)	11 (17.5%)	2 (3.2%)	0 (0%)
Periodically collect learning data from students to improve instructional process	21 (33.3%)	23 (36.5%)	11 (17.5%)	8 (12.7%)	0 (0)

Assessment of Learning Practices

Faculty respondents showed that they frequently practice summative assessment activities in teaching in the new normal as attested to by the mean score of 4.1111 ± 0.1826. About 82.5% of the faculty use assessment to measure the students' extent of learning at the end of each learning session whether the mode of learning is online, blended, or modular. More than 89% evaluate students' level of competence by providing summative assessments like midterm and final examination. Moreover, about 85.7% use assessment to make a final judgment of students' level of learning achievement at the end of the subject or lesson. However, only about 58.7% identify the degree to which desired learning outcomes are attained by the students. Of the remaining 41.3%, 27% of the faculty occasionally practice it, 4.8% rarely do it and 9.5% almost do not practice this particular assessment activity.

Table 4. Assessment of Learning (AoL) Practices

Items	Always n (%)	Frequently n (%)	Occasionally n (%)	Rarely n (%)	Very Rarely n (%)
Measure extent of learning at the end of a lesson or subject	29 (46.0)	23 (36.5)	8 (12.7)	3 (4.8)	0 (0)
Evaluate the level of competence of students at the end of an instructional program	31 (49.2)	25 (39.7)	4 (6.3)	3 (4.8)	0 (0)
Determine the degree of accomplishment of the desired learning outcome at the end of a lesson	21 (33.3)	16 (25.4)	17 (27.0)	3 (4.8)	6 (9.5)
Make a final decision about the level of learning that students achieved at the end of a lesson or subject	23 (36.5)	31 (49.2)	7 (11.1)	2 (3.2)	0 (0)

Impact of Professional Development on the Classroom Assessment Practices of the Faculty

Results of the Spearman correlation indicated that there was a significant positive association between years of teaching experience and assessment as learning practice, ($r_s(63) = .585$, $p < .001$); assessment for learning practice, ($r_s(63) = .392$, $p < .001$); assessment of learning practice, ($r_s(63) = .569$, $p < .001$); as well as total CAP score, ($r_s(63) = .392$, $p < .001$). The Kruskal–Wallis test demonstrated significant differences (p-value < 0.01) in the scores on the practice of assessment as learning, assessment for learning, assessment of learning as well as total CAP score (Table 5). Overall, the higher the number of years of teaching experiences, the higher the level of classroom assessment practices. The result of the Kruskal-Wallis and Jonckheeree Terpstra tests, summarized in Table 5, further supported these findings.

Table 5. Results of Kruskal Wallis and Jonckheere-Terpstra Test on Classroom Assessment Practices (CAP) across Years of Teaching Experiences

Measure	Kruskal-Wallis		Jonckheere-Terpstra		
	χ^2	df	Number of Levels	n	J-T
Assessment as Learning (AAL)	21.594**	2	3	63	990.5**
Assessment for Learning (AFL)	20.158**	2	3	63	989.0**
Assessment of Learning (AOL)	9.869**	2	3	63	871.5**
Total CAP Score	20.842**	2	3	63	989.0**

*p<0.05; **p<0.01

Table 6. Results of Kruskal-Wallis and Jonckheere-Terpstra Test on Classroom Assessment Practices (CAP) across Highest Education Attainment

Measure	Kruskal-Wallis		Jonckheere-Terpstra		
	χ^2	Df	Number of Levels	n	J-T
Assessment as Learning (AAL)	5.017	2	3	63	613.5
Assessment for Learning (AFL)	4.976	2	3	63	651.5
Assessment of Learning (AOL)	9.013*	2	3	63	671.0*
Total CAP Score	8.366*	2	3	63	679.5**

*p<0.05; **p<0.01

On the other hand, results of Spearman correlation indicated no significant relationship between highest educational attainment of faculty and their practice of assessment as learning, ($r_s(63)$ = .209, p>.05). However, results revealed a significant positive relationship between highest educational attainment and assessment of learning practice, ($r_s(63)$ = .331, p<.01); assessment for learning practice, ($r_s(63)$ = .280, p<.05); and total CAP score, ($r_s(63)$ = .331, p<.01).

The Kruskal–Wallis test demonstrated significant differences (p-value < 0.05) in the scores on an assessment of learning practice and total CAP score across the highest educational attainment (Table 6). Overall, doctorate graduates achieved significantly higher scores on an assessment of learning practice and total CAP score as compared to master's degree and bachelor's degree graduates. The Jonckheere–Terpstra test results confirmed that the scores on an assessment of learning practice and total CAP score were significantly associated (p< 0.05) with the highest educational attainment. There was a statistically significant trend of higher median scores on an assessment of learning practice and total CAP scores with higher levels of educational attainment (from

"bachelor", "master's", to "doctorate"), (T_{JT} = 671.0 and T_{JT} = 679.5, respectively) (Table 6).

DISCUSSION

This study investigated the classroom assessment practices of the faculty of the College of Teacher Education in the new normal in terms of the three classroom approaches: assessment as learning, assessment for learning, and assessment of learning. In the present study, most faculty respondents exhibited a high level of classroom assessment practices which presents a good result considering that the flexible learning modalities have also change the way classroom assessment is done in the new normal.

Assessment as learning is a classroom assessment approach that focuses on teaching the students metacognitive processes in such a way that they plan, monitor, and assess their learning. Metacognitive knowledge enables students to learn and perform better as they take charge of their learning (Pintrich, 2002). The majority of the faculty respondents practice this approach, however, there is a need to emphasize providing the students some assessments techniques where they can do self-assessment such as reflection journals or learning logs, minute paper, muddiest point, and the like. Assessment for learning as an assessment approach is intended to generate immediate feedback to improve students' learning and monitor their progress while the instructional process is ongoing (Nicol & Dick, 2006). Most of the faculty respondents utilize this assessment approach particularly in using assessment results to improve student's learning and performance as well as to improve the teaching and learning process. However, determining students' weaknesses and strengths may be practiced through pretest, diagnostic test, and oral recitation activities where the faculty can give immediate feedback to students to achieve better learning. On the other hand, assessment of learning is the most frequently practiced by the faculty respondents because summative assessments are part of the instructional program of the college. Midterm and final examinations are periodically administered to the student. However, in the new normal, summative assessment may include alternative assessment such as authentic assessment activities, portfolio, and traditional assessment utilizing an online platform like google form.

Dissimilarity in the classroom assessment practices was observed across the highest educational attainment and years of teaching experience. Graduates of doctorate and master's degrees have higher levels of classroom assessment practices than faculty who are bachelor degree holders alone. This means the professional through graduate studies enhances the knowledge and skills of the faculty in terms of classroom assessment approaches especially in the flexible learning modality. This result disagrees with the findings of (Gonzales & Callueng, 2014; Regondola & Barbado, 2017) which revealed that educational attainment is not significantly related to assessment practice. Similarly, faculty who have at least 20 years of teaching experience have a higher level of classroom assessment practices than those with a lesser number of years of teaching experience.

This is because the majority of senior faculty members are handling professional education courses which aided them in their practice of the different assessment approaches. These results conform to the findings of Regondola and Barbado (2017) which reported that frequency in the use of classroom assessment type is significantly related to years of teaching experience.

LIMITATIONS

The present study had certain limitations. The study was limited to the College of Teacher Education of one state college and thus the results may not be generalizable to the larger community. Second, the survey was conducted online using Google form and was administered using the Facebook messenger application and, therefore, some faculty members of the college were not able to participate due to interconnectivity problems and other technical issues. Finally, owing to the exploratory nature of the study, the inherent selection bias cannot be overruled.

CONCLUSIONS AND RECOMMENDATIONS

The study revealed that most of the faculty respondents frequently practice the three different classroom assessment approaches to improve students' performance, guide students to monitor their own learning and progress through self-assessment and measure students' level of competence at the end of the instructional program. Professional development indicators such as years of teaching experience and highest academic attainment influence classroom assessment practices of the faculty in the new normal. Interestingly, a significant positive trend of higher levels of classroom practices with a higher level of educational attainment and years of teaching experience was noted. It is suggested that the academic officials of the College of Teacher Education should develop a mentorship program on classroom assessment approaches in the new normal where the senior faculty and faculty with doctorate degrees serve as the mentors for retooling and upskilling of the beginning faculty members especially in ensuring validity and reliability of assessment activities in flexible learning modalities.

IMPLICATIONS

The findings of the study indicated possible implications for professional development, teaching, and research. First, college instructors should be encouraged to pursue graduate studies for their professional growth and advancement. The graduate studies program will provide them greater opportunities to learn more about pedagogical and assessment skills which they can use to better assess students' learning. Second, senior faculty and other faculty experts are also encouraged to design and implement mentorship programs on classroom assessment that will provide opportunities to faculty mentees to become adept in using assessment for better teaching and learning in the different flexible learning modalities. Third, faculty teaching assessment of learning

course among pre-service teachers should emphasize not only conceptual ideas of assessment but practical applications of the assessment approaches in the classroom set up especially in the new normal. Finally, further research along this line may also be conducted utilizing both quantitative and qualitative data to examine challenges in the assessment practices in the new normal.

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REFERENCES

Bennet, R. E., & Gitomer, D. H. (2009). *Transforming K-12 assessment: Integrating accountability testing, formative assessment, and professional support*. New York: Springer.

Brink, M., & Bartz, D. E. (2017). Effective use of formative assessment by high school teachers. *Practical Assessment, Research, and Evaluation, 22*(1), 8-10.

Buabeng, I., Atingane, A. & Amoako, I. (2019). Practices, challenges and perceived influence of classroom assessment on mathematics instruction. *International Journal of Assessment Tools in Education, 6*(3), 476-486.

CHED. (2020). *CHED COVID-19 ADVISORY NO. 3*. Retrieved from https://ched.gov.ph/wp-content/uploads/CHED-COVID-2019- Advisory-No.-3.pdf

Hill, K. (2017). Understanding classroom-based assessment practices: A precondition for teacher assessment literacy. *Papers in Language Testing and Assessment, 6*(1), 1-17.

Jones, S., & Tanner, H. (2008). *Assessment: A practical guide for secondary teachers (2nd ed.).*   London: Continuum.

Khairil, L. F., & Mokshein, S. E. (2018). 21st century assessment: online assessment. *International Journal of Academic Research in Business and Social Sciences, 8*(1), 659-672.

Linn, R., & Miller, M. (2005). *Measurement and assessment in teaching (9th ed.).* Upper Saddle River, NJ: Merrill-Prentice Hall.

Moss, C. M., & Brookhart, S. M. (2019). *Advancing formative assessment in every classroom: A guide for instructional leaders*. ASCD.

Murray, S. (2006). *The role of feedback and assessment in language learning*. Rhode University, Grahamstown.

Nicol, D. & Dick, D. (2006). Formative assessment and self-regulated learning: a model and seven principles of good feedback practice. *Studies in Higher Education 31*(2), 199-218.

Nitko, A. J., & Brookhart, S. M. (2007). *Educational assessment of students (5th ed).* Upper Saddle River, NJ: Pearson Education

Özdemir-Yılmazer, M., & Özkan, Y. (2017). Classroom assessment practices of English language instructor. *Journal of Language and Linguistic Studies, 13*(2), 324-345.

Pintrinch, R. (2002). The role of metacognitive knowledge in learning, teaching and assessing. *Theory into Practice 41*(4), 219 -225.

Ras, E., Whitelock, D., & Kalz, M. (2015). The promise and potential of e-assessment for learning. In *Measuring and visualizing learning in the information-rich classroom* (pp. 37-56). Routledge.

Ratminingsih, N. M., Artini, L. P., & Padmadewi, N. N. (2017). Incorporating Self and Peer Assessment in Reflective Teaching Practices. *International Journal of Instruction, 10*(4), 165-184.

Sato, M., Wei, R. C., & Darling-Hammond, L. (2008). Improving teachers' assessment practices through professional development: The case of National Board Certification. *American Educational Research Journal, 45*(3), 669-700.

Shazadiy, S. & Rafa, A. (2018). A study of classroom assessment practices: Challenges and issues in the context of public secondary schools of Karachi Pakistan. *American Journal of Educational Research and Reviews, 3*(29), 1-10.

Stiggins, R. J. (2008). *An introduction to student-involved assessment for learning*. New Jersey: Pearson Merrill Prentice Hall

Vardar, E. (2010). *Sixth, seventh and eighth grade teachers' conception of assessment* (unpublished master's thesis). Middle East Technical University, Ankara, Turkey.

Vlachou, M. (2018). Classroom assessment practices in middle school science lessons: A study among Greek science teachers, *Cogent Education, 5*(1), 1-19. DOI: 10.1080/2331186X.2018.1455633

Wiliam, D. (2008). Quality in assessment. In S. Swaffield (Ed.), *Unlocking Assessment: Understanding for reflection and application* (pp. 123-137). New York, NY: Routledge.

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