POTENTIAL INSTITUTIONAL SUCCESS INDEX (PISI) FOR TEACHERS' BOARD EXAMINATION

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Abstract

The study delved into the Potential Institutional Success Index (PISI) for Teachers' Board Examination. It sought to identify predictions of the performance in the Licensure Examination for Teachers (LET), the factor loadings and communalities, and the relationship between the identified factors and average LET performance for three years. Using the factor analysis and secondary data sources of the LET result from the Teacher Education Program of Surigao Del Sur State University (SDSSU)-Main Campus, the findings revealed that the potential success institution index for the Teachers' Board Examination covers several factors comprising quality assurance, demographic profile, learning environment, management support, students competence, teachers' competences, students' readiness, and institutional resource index. Findings reveal a significant relationship between the LET result, teachers' competence, and institutional resource factors. The management of the Teacher Education program should adhere to the recruitment of the best faculty members and the provision of adequate and relevant learning resources that will optimize learning outcomes and board performance in the LET.

Keywords: *potential institutional success index, teachers' board exam, factor index*

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1.0 Introduction

The performance in the Licensure Examination for Teachers (LET) reflects the ability of the pre–service teachers and the quality of teacher education programs offered by the Higher Education Institutions (HEIs) (Rabanal, 2016). Efforts have been instituted by Teacher Education Institutions (TEIs) to surpass the national passing percentage and eventually produce topnotchers in every board examination conducted by the Professional Regulations Commission (PRC). One of the College of Education's most important priorities is to maintain and advance the passing rate of its graduates in the Licensure Examination for Teachers (LET). It is a manifestation of the quality education offered by HEI, specifically a Teacher Education Institution (TEI). In the study of Alova (2021) on the Performance of LET 2019 in the Philippines, results showed that the LET performance is generally passing but still quite low (Mean=79.542, SD=5.566). The Math and English majors exhibit high performance in the General and Professional Education subjects compared to the other programs, while the Math majors attained the highest performance in the Major subject among the other programs. Wholey (1987) attributed the success of the curricular programs to the type of faculty and students in the program. However, Goldhaber and Anthony (2007), associated the licensure performance test with the pedagogical knowledge and qualification of teachers handling the program. Thus, some contributory factors in passing the LET center on the adequacy of school facilities, students services, and the quality of review program employed by the TEIs.

With the aforementioned claims, there is a divergent perspective on what determinants influence LET performance. In a way, educational leaders are guided by what measures should be undertaken. Thus, this study on the potential institutional success index for teachers' board examination, was conducted. This study aimed to attain the following objectives: (1) identify predictors of performance in the Licensure Examination for Teachers (LET); (2)Determine the factor loadings and communalities using factor analysis; (3) Establish the relationship between the identified factors after employing factor analysis.

2.0 Methodology

The study employed a quantitative research design using Factor Analysis, which is suitable for extracting a few factors from a large number of related variables into a more manageable number. It is a way to condense the data from many variables in just a few variables, which is sometimes called dimension reduction (Shrestha, 2021). The researchers identified different variables, that are deemed significant in the LET results. Secondary data served as the primary source of information as to student's admission result, college qualifying exams, teacher evaluations, and accreditation results. These data were collected from the different offices concerning the varied indices reflected in the study. This study investigated the potential institutional success index in the performance of the Licensure Examination for Teachers (LET) in the College of Teacher Education (CTE) of Surigao del Sur State University-Main Campus. Eleven (11) variables were assessed, including the *Entrance Result, High School GPA, Qualifying Examination, Interview Result, Educational Qualification of Teachers, Teaching Performance, Socio-economic status of students, Facilities, Instructional Material, Accreditation Status of the Programs,* and *LET Review Program*. In the data analysis, a Scree plot was used to determine the number of dimensions to be included in the study. The "elbow-type" appearance in the scree plot suggests the number of factor loadings to be used in the study.

3.0 Results and Discussion

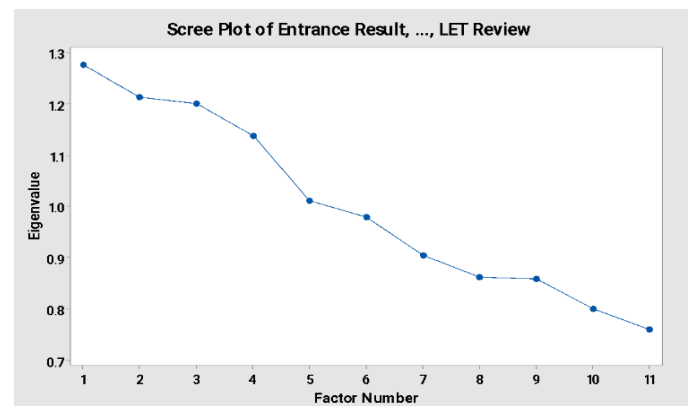The figure below shows the Scree plot of the eleven (11) identified success indicators of teachers' board examination.

Figure 1. Scree Plot of LET Success Indicators

Table 1 Eight factor loadings and communalities

Variables	F 1	F 2	F 3	F 4	F 5	F 6	F 7	F 8	Communality
HS GPA	0.216	-0.589	0.162	-0.067	-0.159	-0.371	0.192	-0.404	0.788
Qualifying Ex-am	-.007	-0.140	-0.575	-0.562	0.244	-0.046	0.013	0.022	0.728
Interview result	0.190	0.013	0.591	0.027	0.466	-0.354	-0.211	-0.286	0.855
Educational Qualification	-0.485	0.045	0.032	-0.334	-0.462	-0.181	-0.444	0.111	0.806
Teaching Performance	-0.465	-0.203	0.028	-0.134	0.006	0.039	-0.772	0.018	0.874
Socio – Eco-nomic Status	0.179	0.488	-0.352	-0.112	0.070	-0.299	-0.238	-0.569	0.881
Facilities	0.290	-0.124	0.333	-0.561	0.011	-0.360	-0.123	0.394	0.824
Instructional Materials	0.036	⁻0.612	-0.166	0.297	-0.378	-0.200	-0.101	-0.101	0.696
Accreditation Status	0.593	-0.264	0.027	0.023	-0.440	-0.123	-0.036	0.178	0.664
LET Review	0.378	-0.266	-0.455	0.248	0.104	0.336	-0.078	0.218	0.660
Entrance Result	0.423	-0.183	0.015	-0.365	-0.367	-0.545	0.031	-0.238	0.836
Variance	1.3249	1.2130	1.1790	1.0608	1.0027	0.9841	0.9649	0.8830	8.6124
% of Variance	0.120	0.110	0.107	0.096	0.091	0.089	0.088	0.080	0.865

The Scree plot in Fig. 1 exhibits the determinants of the performance for the Licensure Examination for Teachers, which covers the University entrance examination result of the students, the high school GPA, qualifying exam result, faculty educational qualification, teaching performance, socioeconomic status, school facilities, instructional materials used by the faculty, accreditation status of the College, and the LET Review Program, which is offered by the College to prepare its graduates to take the board examination. The "elbow" formation, as reflected in the plot, is between factors 8 and 9. Thus, the number of factors to be used is either eight (8) or nine (9) factors. This study made use of eight (8) factors.

Table 1 indicates the factor loading and commonalities of the different identified predictors of LET Performance. Factor 1 reveals the accreditation status of the teacher education program (0.593) and the entrance test results of students (0.423), labeled as a quality assurance factor. The socio–demographic status (10.488) of the students and the educational qualification of the faculty (0.045), marked as demographic profiles, were considered as factor 2. The interview result (0.591) and facilities (0.333), labeled as learning environment factors, also reveal themselves to be predictors for LET Performance. In factor 4, the instructional materials (0.297) and the LET Review (0.248), tagged as management support, appeared to have the highest loading.

On the other hand, the interview results of the students during the admission process (0.466) and the qualifying exam (0.244) using standardized tools were noted to be the factors that described the teacher's competence and were also seen as predictors of the LET performance. Factor 7 considers the HS General Average Percentage (GPA 0.192) and qualifying exam (0.013) were noted to be evident and characterized as students' readiness factors. School facilities (0.394) and LET review (0.218) are described as instructional resource factors. In addition, factor 8 notes the predictors of success in the Teachers Board Examination. From the factor loadings of the variables considered in this study, it reveals that the communalities were seen to have a higher variance of 0.865 or 87%.

Results shown in Table 1 support the findings of various researchers that LET performance is associated with several factors, viz: College entrance examination, faculty qualification, institutional competence, academic achievements, and mock examinations (Hugasan, 2006; Pascua and Navalta, 2011).

It can be gleaned from Table 2 that only two factors, namely the teachers' Competence (p=0.015) and Instructional Resources (p=0.014), manifest a significant relationship with the average LET result within three years. This conveys that Teacher Education Institutions (TEIs) should give prime consideration to the recruitment of qualified faculty that could deliver quality instruction to bring out the best learning outcomes in the pre–service teachers. The LET performance is optimized when management support is

evident through the provision of relevant and adequate instructional resources. Similar to the findings of Hamid et al. (2012), quality and professional knowledge and skills of the faculty impact the management of student's learning and LET performance. Quiambao *et al.* (2015) also argued that the quality of library and laboratory facilities and other learning resources greatly affects the learning outcomes of students.

Table 2. Significant relationship of the eight indices with LET results

Factor Indices (Independent)	LET Result (Dependent) Computed r	*p*-Value	Conclusion
Quality Assurance	0.045	0.397	Not Significant
Demographic Profile	0.036	0.493	Not Significant
Learning Environment	0.00	0.997	Not Significant
Management Support	0.032	0.541	Not Significant
Students' Competence	0.017	0.745	Not Significant
Teachers' Competence	0.729	0.015	Significant
Students' Readiness	0.042	0.431	Not Significant
Instructional Resource	0.830	0.014	Significant

4.0 Conclusion

The result of this study dictates that there are several components to be given weight in preparing education graduates for the LET. This suggests that prior to graduation, students' preparation includes the following indices to be put in place: quality assurance, demographic profile, learning environment, management support, students' competence, teachers' competence, students' readiness, and institutional resource index factors. It can also be deduced that a significant relationship exists between the teachers' competence and instructional resource factors and the average LET result. Thus, the management of TEIs should greatly consider the recruitment of the best faculty who can deliver quality instruction and be drivers of optimum learning outcomes. There is a need for the management to establish a robust faculty development program. They may provide instructional resources to intensify the teaching-learning process.

References

Alova, C.A.R. (2021). Performance of college of education graduates in the licensure examination for teachers: A descriptive study. *Academia Letters, Article 4087, 1-6.* https://doi.org/10.20935/AL4087.

Goldhaber, D., & Anthony, E. (2007). Can teacher quality be effectively assessed? National Board Certification as a signal of effective teaching. *The Review of Economics and Statistics, 89 (1), 134-150.* https://doi.org/10.1162/rest89.1.134.

Hamid, S.R.A., Hassan, S.S.S., & Ismail, N.A.H. (2012). Teaching quality and performance among experienced teachers in Malaysia. *Australian Journal of Teacher Education, 37 (11), 85-103.* http://ro.ecu.edu.au/ajte/vol37/iss11/5.

Hugasan, M. (2006). *Determinants of LET performance of Education students: 2005-2006.* [Unpublished Doctoral Dissertation], Cebu Normal University. Cebu City, Philippines.

Pascual, A. L. B. P., & Navalta, J.D. (2011). Determinants of L.E.T. performance of the teacher education graduates in a state university. *JPAIR Multidisciplinary Research Journal, 6 (1).* http://dx.doi.org/10.7719/jpair.v6i1.138.

Quiambao, D.T., Baking, E.G., Buenviaje, L.B., Nuqui, A.V., & Cruz, R.C. (2015). Predictors of board exam performance of the DHVTSU College of Education graduates. *Journal of Business & Management Studies, 1(1)*, 1-4.

Rabanal, G. C. (2016). Academic achievement and LET performance of the Bachelor of Elementary Education graduates, University of Northern Philippines.*International Journal of Scientific and Research Publications, 6 (6), 455-461.*

Shrestha, N. (2021) Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics, 9 (1), 4-11.* https://doi.org/10.12691/ajams-9-1-2

Wholey, J. (1987). *Using program theory in evaluation* (Vol 33). San Francisco: Jossey-Bass.