

Learning Approaches of Students in Accountancy Course its Relationship to their Academic Performance in a Higher Learning Institution of Peru

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Abstract

Creating a learning environment that supports high-quality education is one of the concerns for effective accounting education with the end goal of producing graduates who are capable of meeting the expectations of the business world and being successful in their professional careers. The learning styles and academic performance were assessed in this present study. The study involved a randomly sampled 276 freshmen accounting students in one university in Peru. It utilized the adopted Approaches and Study Skills Inventory for Students (ASSIST) questionnaire. It used a descriptive-correlational research approach. Based on the assessment of the students' learning approaches of the respondents. The accounting students are highly inclined to deep and strategic learning approaches while they manifest moderate adherence to the surface and the combination of deep and surface. This study implies that a favorable acceptance of deep and strategic learning approaches is adhered to by the sampled accounting students while a moderate acceptance to surface and deep and surface learning approaches. As to academic performance, the accountancy freshmen students' academic performance is generally very good. Test of differences revealed that the sex of the respondents spelled differences in students learning approaches. Male accountancy respondents have higher inclinations to the learning approaches than the female students on deep, strategic, while female students manifest higher inclinations to the combination of deep and surface. In like manner, It is interesting to note that the sex spelled significant differences in the academic performance of the respondents in favor of the female respondents. This shows that female accountancy students have higher academic performance than their male counterparts. That there is a significant relationship between the Learning Approach Inclinations and Academic Performance of the accountancy students. This finding of the study may present implications to the accountancy curriculum of one university in Peru. There are many potential paths for further research after the article examines what these findings mean for educators. Results of the study can be used for curriculum enrichment and adjustment of the teaching-learning system in the Accountancy program.

Keywords: learning approaches, academic performance, Accountancy students, ASSIST, learning resources, teaching-learning system

1. Introduction

Due to the rapid pace of change in the corporate environment, especially in the areas of legislation, technology, and globalization, the function and actions of professional accountants are constantly changing and evolving (Alaqrabawi & Alshurafat, 2021, Anastasiou, 2021, Johnson et al., 2008, Tan

& Laswad, 2018). This changing environment requires today's students to acquire relevant skills in order to become the professional accountants of the future who can survive and flourish (Duff Hancock & Marriott, 2020, Ofoegbu et al., 2018, Wolcott & Sargent, 2021). The ability to adjust to unexpected developments in the future is essential for accounting students (Apostolou et al., 2018). Educators must create learning environments that encourage students to think independently, develop a personalized understanding of new material, analyze information, solve problems, relate new knowledge to prior knowledge, and apply it in new situations in order to foster such abilities in their students' future.

As a result of increasing interest in educational research, the teaching and learning process has become one of the most prominent topics of discussion. The academic learning of students is of special importance. Only a handful of educational studies have examined students' learning styles. Students' learning techniques, as described by Biggs (2001), are a combination of their goals and methods (strategies). With these, it is essential to identify student learning styles to enhance learning quality. Students' study methods have a major effect on both their academic performance and the quality of their learning (Delahoz-Dominguez et al., 2020, Rivas et al., 2021). Research has uncovered two potentially opposing learning styles: deep and surface (Stokes et al., 2020, Huang et al., 2020). Deep learners tend to see learning as changing knowledge, being genuinely driven, and employing learning methods that concentrate on the significance of the content to be learned, resulting in better quality learning results (Araujo et al., 2020, Jhala & Mathur, 2019, Waheed, et al., 2020). A surface-oriented approach, on the other hand, encourages students not to think of learning as a process of acquiring information but as a process of replicating it. (2021) suggest that a strategic approach is based on achieving motivation and involves strategies such as systematic use of previous papers in revision, good organization, effective note-taking, and awareness of marking scheme and criteria that lead to better academic performances.

A large number of freshmen enroll in the Accountancy program, but only a small percentage of them complete the degree after five years of study. The accounting program has a poor success rate. There are a large number of freshmen who are not able to get over the hurdle rate established for the accounting program. A study has been undertaken by the researcher in order to identify which learning style dominates in accounting classes, as well as investigate the connection between methods to learning and academic achievement. Accountancy students will benefit from the study's results, which will serve as the basis for an intervention and support program. However, the study's findings will also be helpful to the faculty in terms of how to successfully deliver the information to students with diverse learning styles.

Phenomenography is the most common method used to examine the connection between a student's approach to learning and their degree of comprehension. In recent years, course goals have been recast as learning outcomes, and even student-based learning has been included. Students may learn in a variety of ways based on these factors. Among the tools available to assess learner characteristics is the Approaches and Study Skills Inventory for Students (ASSIST), created by the University of Edinburgh's Center for Research on Learning and Instruction (Entwistle, Tait, and McCune, 2000). Marton and Saljo's (1976) distinction between deep and superficial learning, coupled with Entwistle and Ramsden's strategic approach to studying, is the basis for the ASSIST's design (1983). Approaches and Study Skills Inventory (ASSIST) is a tool that assesses how university students see learning, study techniques, and instructional methods. There are three (3) main ways to studying that have been

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discovered utilizing the ASSIST: deep, strategic, and superficial research methods. Study after study shows that attitude to learning correlates with academic achievement, which supports construct validity. Surface methods may put pupils at risk of low academic achievement. Creating a curriculum that encourages deep and strategic thinking, as well as student engagement and motivation, may improve performance results. A future study, according to the authors, should examine the measure's use in identifying students who are at risk for academic failure and evaluate the efficacy of treatments intended to improve study habits in an academic counseling environment.

Students' views, methods, and results in a business course were examined by Abraham (2006) in order to determine how these students learn and to offer some techniques that might be used to improve their learning experience. Student responses to studying a business topic were shown to be linked to their views of the learning environment. Students who learn in various ways may have varied prediction skills, he said, and accounting instructors might use this information to help students take remedial action when necessary. When it comes to teaching in the first year of college, surface learning is a viable methodology. Donnison and Penn-Edwards (2012) have discovered that surface learning is an important first step in students' development as lifelong learners. There is an urgent need to assist Accounting students in experiencing deep learning through the use of individualized, authentically assessed tasks with regular formative and summative feedback as part of an integrated set of interventions in the first-year courses to enable them to develop personal capabilities in their later university studies, as stated by Turner and Baskerville (2013). A student's qualities play a crucial role in deciding how they learn. However, some research has shown that gender does not have a clear correlation with learning styles, while others have found the opposite to be true. A student's maturity increases when he or she moves from a superficial to a deeper or strategic approach. A mature person is likely to be responsible in the classroom. Using ASSIST as a research tool.

The connection between learning methods and performance has been studied in a few prior research, and it has been examined depending on gender. For female students, Byrne, Flood, and Willis (2002) found that deep and strategic approaches were positively linked with good academic achievement, while there was no evidence for male students. Men like the deep approach, according to Barac (2012). Today's technology makes it possible for students to use a variety of social media platforms to share information and connect with one another. According to research on learning methods and academic achievement, deep and strategic approaches have a favorable connection (Tho et al., 2020, Xie et al., 2020, Abdelrahman, 2020). In order to prepare students for the real world, accrediting and regulatory authorities have suggested that students' curriculum focus on critical thinking and real-life preparedness. Beginning, intermediate, and advanced Accounting students should use a deep learning strategy.

First-year accounting students may select and use resources in a number of ways. Teaching and learning may be better understood by looking at how students learn. Teachers who wish to understand their students' learning and design learning environments that enable students to attain desired learning outcomes may find them especially beneficial. As a result, the conventional style of teaching may now be replaced with a more comprehensive approach. Moreover, the accounting curriculum may emphasize the critical thinking and real-life preparedness of students, as suggested by accounting accreditation and regulatory organizations.

2. Objectives of the Study

This study aims to determine the students' learning approaches and its relationship to their academic performance. Specifically, it answers the following questions: (1) assess the dominant learning approaches of the freshmen accounting students; (2) describe their academic performance; (3) assess the significant differences in the learning approaches and academic performance when grouped according to their profile variables.

3. Methods

Research Design

The descriptive-correlational research design was used in the study to examine the relationship between students' profiles, learning approaches, and their academic performance. The correlation technique was used since it looked at the correlation between variables in this study (Siedlecki, 2020). It is possible to measure the degree of connection between two variables using a correlation coefficient (rho). Researchers employed correlation statistical tests to explain and quantify how closely two or more variables or sets of scores are related, according to Creswell's (2012) view (p. 338). As a result of this, the researcher in this study does not try to control or alter the variables as in an experiment but instead uses correlation statistics to compare two or more scores for each individual.

Respondents' Characteristics and Sampling Technique

Employing Raosoft as an online sampling calculator (<http://www.raosoft.com/samplesize.html>) set at 5 percent margin of error, 95% level of confidence, and population size of 865. A sample size of 276 freshmen students was randomly sampled. The freshmen Accountancy students are currently enrolled in one university in Peru. Table 1 presents the sex and age profile of the sampled respondents of the study. The majority of the respondents were female and at the age of 19. As part of the study, we used probabilistic sampling and simple random sampling. So that each person had an equal chance of being chosen from the population, the researcher used this form to choose volunteers for a sample. The correlation technique, according to Creswell (2012), requires a minimum of 30 individuals to establish a correlation. In this study, the researcher randomly selected 276 respondents from the population based on the arguments. There are enough participants in this sample to meet the minimal criteria for correlation research.

Table 1. Profile Characteristics of the Respondents

		Respondents (n=276)	Percentage Distribution
Sex	Male	120	43 %
	Female	156	57 %
Age	18	68	25 %
	19	135	49 %
	20	73	26%

Research Instruments

Using Entwistle, Tait, and McCune's Approaches and Study Skills Inventory for Students (ASSIST), students' learning styles were evaluated (2000). Study techniques, conceptualizations of learning, and

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preferences for various instructional modalities were evaluated using the ASSIST. Deep, strategic, and surface methods have been found in ASSIST research. Students' perception or agreement with the statements were measured using a five-point Likert scale with a rating of 5 (highest) for "very close" and 1 (lowest) for "very different.". The academic performance of students was taken from the school records. On a five-point Likert scale, where 1 means disagree, and 5 means agree, respondents express their agreement with 52 statements in the instrument. There are 13 subscales, which are further subdivided into three major scales. ASSIST's 13 subscales were scored by adding up the answers of each student to each statement inside the scale. This yielded the mean scores for each of the three learning methods. As a result of integrating the scores of the appropriate subscales, we arrived at the scores for the major scales. In order to standardize the scores, each scale was split by the number of component subscales, allowing comparison across the three methods. For each scale, the maximum score was 20. Byrne, Flood, and Willis (2004) and Kelly (2005) validated the ASSIST for use with accounting and science students in Ireland. However, Cronbach alpha values were calculated in the present research in order to evaluate the internal reliability of results. As with the major scales and subscales, the alpha values vary from 0.80 to 0.87. We believe that these values are acceptable and similar to those reported in previous research (e.g., Byrne et al. 1999; Byrne and Flood 2005; Tait, Entwistle, & McCune 1998).

Data Analysis

All data gathered were tabulated and analyzed. Combined descriptive, inferential, and correlational statistics were used. Descriptive statistics (frequency, percent, rank, mean, and standard deviation) were used to describe students' learning approaches and academic performance in accounting subjects. Inferential statistics were used to determine the significant differences between students' learning approaches with their academic performance. After determining the correlation coefficient, it is necessary to find out whether the hypothesis is accepted or not. The hypothesis testing can be gained by seeing the significance value. If the significance value is more than 0.05, it means H_0 is accepted, and H_a is rejected. Conversely, if the significance value is less than 0.05, it can be concluded that H_0 is rejected and H_a is accepted. The significance value will appear after the computation of the correlation coefficient using SPSS software.

Results and Discussion

Assessment on the Students Learning Styles

Table 2 showcased the assessment of the accounting students on their learning approaches. The data reveals that the majority of the students are highly inclined to deep and strategic learning approaches while they manifested moderate adherence to the surface and the combination of deep and surface. This study implies that a favorable acceptance of deep and strategic learning approaches is adhered to by the sampled accounting students. This suggests the need for them to be catered to in this aspect since they see themselves learning better using strategies that are aligned to deep and strategic teaching and learning strategies and techniques. Moreover, a moderate acceptance of the surface and deep and surface learning approaches may not be taken for granted but can be accepted by instructors and professors to implement learning activities in the online or face-to-face learning modalities of the accounting students. A genuine interest in learning is the hallmark of a thorough approach to teaching and training using a deep learning approach. Students are engaged with the information critically,

connect it to their previous knowledge and experience, and assess whether or not the conclusions are supported by the evidence given by the teacher (Haidar, 2021, Ma & Xu, 2020, Vallejo-Correa, et al., 2021). The consequence of deep learning is improved retention and transfer of information, as well as higher-quality learning results. In like manner, strategic learning approaches describe the intentions and activities of students who are primarily focused on achieving the highest possible grades. Academic content and evaluation criteria are of equal importance to these learners. In order to achieve academic achievement, people adopt whatever learning method would maximize their chances of academic success. As an implication of this result, teachers must help students develop their deep and strategic learning approaches inclinations.

Table 2. Assessment on the Students Learning Approaches

Learning Approaches	Mean	Std	Interpretation
Deep	4.16	0.34	High
Strategic	4.18	0.45	High
Surface	3.38	0.43	Moderate
Deep, Surface	3.26	0.23	Moderate
Grand Mean	3.745		High

Legend: 4.20-5.00: Very High/ Strongly Agree; 3.40-4.19: High/ Agree; 2.60-3.39: Moderate/ Undecided; 1.80- 2.59: Low/ Disagree; 1.79: Very Low/ Strongly Disagree

Assessment of the Academic Performance of the Respondents

Table 2 shows that the mean grade of Accountancy students of 89.45 falls on very satisfactory academic performance. A closer look at the table shows that most of the students have very satisfactory performance with the range of grade of 85-89. It is followed by students who have outstanding academic performance with the range of grades of 90-95. Finally, there were 74 students who had excellent academic performances as manifested by the range of grades of 96-100. In like manner, it is to be noted that the highest grade registered in the sample of respondents is 97.45 and the lowest grade of 86.43. This finding suggests that the accountancy freshmen students' academic performance is generally very good. The quality of an educational institution is usually reflected in the academic performance or accomplishment of its pupils. Student achievement of their own objectives, aspirations, and aims is essential. The need for highly qualified workers is also met by pupils who succeed academically. As a result, every nation's purpose and vision may be achieved in an indirect manner. The variables influencing students' academic success at various levels of schooling have been studied extensively. Studies have shown that extracurricular activities (Fujita, 2006), study habits (Khurshid, Tanveer, and Qasmi, 2012), cognitive style and instructors (Jones and Wright, 2011), prior accounting knowledge (Jones and Wright, 2011, and Byrne and Flood, 2008), gender, prior academic achievement, and family socioeconomic disadvantage.

Table 3. Assessment of the Academic Performance of the Respondents

Range of Grades	Frequency	Level of Mastery
96-100	74	Excellent
90-95	80	Outstanding

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85-89	122	Very Satisfactory
Mean Grade (89.45)	Highest Grade (97.45)	Lowest Grade (86.43)

Test of Differences on the Learning Approaches when Grouped According to Selected Variables

Table 4 presents the test of differences in the learning approaches of the respondents when grouped according to their sex, age, and academic performance. The only variable showing a significant difference is the sex profile of the accounting students. Hence, the null hypothesis of the study stating there is no significant difference in the learning approaches of the respondents when grouped according to their profile variables is rejected. This means that there is a significant difference in favor of the sex variable while age and academic performance do not spell significant differences. In this study, male accountancy respondents have higher inclinations to the learning approaches than the female students on deep, strategic, while female students manifest higher inclinations to the combination of deep and surface. Result of this study is in consonance with previous studies on gender differences on learning approaches may be attributed to female (O'Dea et al., 2018, Voyer & Voyer, 2014) while other studies are attributed to males (Nsor-Ambala, 2021, Zhang & Sternberg, 2020).

Table 4. Test of Differences on the Learning Approaches when Grouped According to Selected Variables

Profile Variables	Learning Approaches
Sex	0.034 *
Age	0.456 ns

*= significant at 0.05 level; ns= not significant at 0.05 level

Note: all other variables are not significant

Test of Differences on the Academic Performance when Grouped According to Selected Variables

Table 5 presents the differences in the academic performance of the respondents when grouped according to sex and age variables. It is interesting to note that the sex spelled significant differences on the academic performance of the respondents in favor of the female respondents. This shows that female accountancy students have higher academic performance than their male counterparts. In like manner, age does not spell the significant difference. Previously, studies have looked at the impact of gender disparities on academic achievement (Ahmad et al., 2015; Ghazvini & Khajehpour, 2011; Ngozi, 2011; Lam et al., 2012). Lam et al. (2012), for example, showed that girls in primary schools from 12 nations reported greater levels of involvement and higher academic achievement than males. According to Ghazvini and Khajehpour (2011), female students scored higher than male students, indicating that female students are better at learning activities. Further confirmation of this tendency may be seen at the university level, as well. Hence, this study confirms that female students outperform the males in accountancy courses.

Table 5. Test of Differences on the Academic Performance when Grouped According to Selected Variables

Profile Variables	Learning Approaches
Sex	0.028*
Age	0.259 ns

*= significant at 0.05 level; ns= not significant at 0.05 level

Note: all other variables are not significant

Test of Relationship between the Learning Approach Inclinations and Academic Performance

Table 6 shows that there is a significant relationship between the Learning Approach Inclinations and Academic Performance of the accountancy students, as shown with the computed r-value of 0.765 and p-value of 0.005, which is lower than the alpha value of 0.05. The positive relationship showed that the students manifest higher academic performance if they manifest high adherence to learning approaches. This finding of the study may present implications to the accountancy program of one university in Peru where the learning approaches of accountancy students are associated with their learning approaches. Hence. This study will guide the university to better implement the delivery of instructions. Further, the result of this study is in consonance with previous studies that academic performance is correlated to learning approaches and styles (Arcinas et al., 2021, Charernnit et al., 2021, Magulod Jr, 2019, Tambunan et al., 2021, Vizeshfar & Torabizadeh, 2018, Waheed, et al., 2020).

Table 6. Test of Relationship between the Learning Approach Inclinations and Academic Performance

Academic Performance	Pearson's r	P-value
Learning Approaches	0.765	0.003*

*= significant at 0.05 level; ns= not significant at 0.05 level

Note: all other variables are not significant

Conclusion

The majority of the students were female and age 19 years old. Based on the assessment of the students' learning approaches of the respondents. The accounting students are highly inclined to deep and strategic learning approaches while they manifest moderate adherence to the surface and the combination of deep and surface. This study implies that a favorable acceptance of deep and strategic learning approaches is adhered to by the sampled accounting students while a moderate acceptance to surface and deep and surface learning approaches. As to academic performance, the accountancy freshmen students' academic performance is generally very good. Test of differences revealed that the sex of the respondents spelled differences in students learning approaches. Male accountancy respondents have higher inclinations to the learning approaches than the female students on deep, strategic, while female students manifest higher inclinations to the combination of deep and surface. In like manner, It is interesting to note that the sex spelled significant differences in the academic performance of the respondents in favor of the female respondents. This shows that female accountancy students have higher academic performance than their male counterparts. That there is a

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significant relationship between the Learning Approach Inclinations and Academic Performance of the accountancy students. This finding of the study may present implications to the accountancy curriculum of one university in Peru. There are many potential paths for further research after the article examines what these findings mean for educators. Results of the study can be used for curriculum enrichment and adjustment of the teaching-learning system in the Accountancy program.

Recommendations

Based on the findings of the study, it is recommended that faculty members should encourage and support accounting students to experience deep learning through the use of individualized, authentic assessed learning tasks with regular formative and summative feedback as part of an integrated set of interventions in the first-year courses to enable them to develop personal capabilities in their later university studies. A follow-up study is recommended on these students to determine if there will be a change in their learning approaches as they go higher in their year level. It is also recommended that a similar study will be conducted in the different programs to further validate the results of this study. The results of the study can be used to enhance the teaching-learning system of the College.

References

1. Abdelrahman, R. M. (2020). Metacognitive awareness and academic motivation and their impact on academic achievement of Ajman University students. *Heliyon*, 6(9), e04192.
2. Alaqrabawi, M., & Alshurafat, H. Alignment between accounting graduates' competencies and workplace needs: Neo-correspondence perspective and meta-analysis.
3. Alawawda, M., & Hassan, A. (2021). Impoliteness in only drunks and children tell the truth by drew Hayden Taylor. *Linguistics and Culture Review*, 5(1), 195-202. <https://doi.org/10.37028/lingcure.v5n1.1307>
4. Anastasiou, E. F. (2021). Accountancy Graduates' Employability: Narrowing the Gap between Employers' Expectations and Students' Perceptions-The Role of HE. University of Derby (United Kingdom).
5. Apostolou, B., Dorminey, J. W., Hassell, J. M., & Rebele, J. E. (2018). Accounting education literature review (2017). *Journal of accounting education*, 43, 1-23.
6. Araujo, L., López-Ostenero, F., Martínez-Romo, J., & Plaza, L. (2020). Deep-Learning Approach to Educational Text Mining and Application to the Analysis of Topics' Difficulty. *IEEE Access*, 8, 218002-218014.
7. Arcinas, M. M., Sajja, G. S., Asif, S., Gour, S., Okoronkwo, E., & Naved, M. ROLE OF DATA MINING IN EDUCATION FOR IMPROVING STUDENTS PERFORMANCE FOR SOCIAL CHANGE. *Turkish Journal of Physiotherapy and Rehabilitation*, 32, 3.
8. Bhatti, A., Pathan, H., Tabieh, A., & Hassan, A., (2020). Impact of Learner-learner Rapport on L2 Learning: A Study of Public Sector Universities in Sindh, Pakistan. *The Asian EFL Journal*, 27 (4.6), 204-226.
9. Biggs, J., Kember, D., & Leung, D. Y. (2001). The revised two-factor study process questionnaire: R-SPQ-2F. *British journal of educational psychology*, 71(1), 133-149.
9. Byrne, M., Flood, B., & Willis, P. (2002). The relationship between learning approaches and learning outcomes: a study of Irish accounting students. *Accounting education*, 11(1), 27-42.
10. Charernnit, K., Alhourani, A. Q., Arcinas, M. M., Velasco, L. G., & Alhourani, A. Q. Cognitive and Attitudinal Effects of Jigsaw Technique as a Collaborative Learning Strategy in Literature Teaching in the Philippines.
11. Delahoz-Dominguez, E., Zuluaga, R., & Fontalvo-Herrera, T. (2020). Dataset of academic performance evolution for engineering students. *Data in brief*, 30, 105537.
12. Derlina, A., Bukit, N., Sahyar., & Hassan, A., (2020). Blended Learning in English and English-Medium Physics Classes Using Augmented Reality, Edmodo, and Tinkercad Media. *TESOL International Journal*, 15(3), 111-136.
13. Donnison, S., & Penn-Edwards, S. (2012). Focusing on first year assessment: Surface or deep approaches to learning. *The International Journal of the First Year in Higher Education*, 3(2), 9-20.
14. Duff, A., Hancock, P., & Marriott, N. (2020). The role and impact of professional accountancy associations on accounting education research: An international study. *The British Accounting Review*, 52(5), 100829.
15. Entwistle, N. (2021). Research into Learning and Teaching in Universities: A View from the Past towards an Uncertain Future. *Student Support Services*, 1-21.
16. Entwistle, N., Tait, H., & McCune, V. (2000). Patterns of response to an approaches to studying inventory across contrasting groups and contexts. *European Journal of psychology of Education*, 15(1), 33-48.

17. Ghazvini, S. D., & Khajehpour, M. (2011). Gender differences in factors affecting academic performance of high school students. *Procedia-Social and Behavioral Sciences*, 15, 1040-1045.
18. Haidar, F. T. (2021). The applicability of the course experience questionnaire in accounting education in Saudi Arabia.
19. Haidar, F. T. (2021). The applicability of the course experience questionnaire in accounting education in Saudi Arabia.
20. Hartono, H., Suparto, S., & Hassan, A. (2021). Language: a 'mirror' of the culture and its application English language teaching. *Linguistics and Culture Review*, 5(1), 93-103. <https://doi.org/10.37028/lingcure.v5n1.835>
21. Hassan, A. (2017, April 9). Is Paninian grammar a Dependency grammar? Why or why not? *DIMENSION*
22. *Journal of Humanities and Social Sciences*.
23. Hassan, A., N. D.-e.-A. (2015). Language planning and language policy dilemma in Pakistan. *International Journal of Linguistics, Literature and Culture (Linqua- LLC)*, 2, No 4
24. Hassan, A. (2016). Assimilation and incidental differences in Sindhi language. *Eurasian Journal of Humanities*, 2(1).
25. Hassan, A., Kazi, A. S., & Asmara Shafqat, Z. A. The Impact of Process Writing on the Language and Attitude of Pakistani English Learners. *Asian EFL Journal*, 27(4.3), 260-277.
26. Hassan, A., Mitchell, R., & Buriro, H. A. (2020). Changes in uses of salutations in British English. *International research journal of management, IT and social sciences*, 7(1), 197-204.
27. Hassan, A. (2018, January 5). Allaboutcorpora. Retrieved from <https://allaboutcorpora.com:https://allaboutcorpora.com/rising-star-ahdi-hassan-pakistani-languages-corpora>
28. Huang, L., Han, R., Ai, T., Yu, P., Kang, H., Tao, Q., & Xia, L. (2020). Serial quantitative chest CT assessment of COVID-19: a deep learning approach. *Radiology: Cardiothoracic Imaging*, 2(2), e200075.
29. Itmeizeh, M., & Hassan, A. (2020). New Approaches to Teaching Critical Thinking Skills through a New EFL Curriculum. *International Journal of Psychosocial Rehabilitation*, 24(07), 8864-8880
30. Jhala, M., & Mathur, J. (2019). The association between deep learning approach and case based learning. *BMC medical education*, 19(1), 1-4.
31. Johnson, S., Schmidt, B., Teeter, S., & Henage, J. (2008). Using the Albrecht and Sack study to guide curriculum decisions. In *Advances in Accounting Education*. Emerald Group Publishing Limited.
32. Khurshid, F., Tanveer, A., & Qasmi, F. N. (2012). Relationship between study habits and academic achievement among hostel living and day scholars' university students. *British Journal of Humanities and Social Science*
33. Khurshid, A., & Hassan, A. (2020). Semantic complications in the war on terror discourse and manipulation of language by state and non-state actors. *International research journal of management, IT and social sciences*, 7(1), 162-168.
34. Ma, J., & Xu, H. (2020). College students' network entrepreneurship model based on FPGA and machine learning. *Microprocessors and Microsystems*, 103504.
35. Magulod Jr, G. C. (2019). Learning styles, study habits and academic performance of Filipino University students in applied science courses: Implications for instruction. *JOTSE: Journal of Technology and Science Education*, 9(2), 184-198.
36. Mahmoudi, H. M., & Hassan, A. CHALLENGES AND ISSUES OF LANGUAGE USE BETWEEN MONOLINGUAL AND MULTILINGUAL SOCIETIES. *Dimension Journal of Humanities and Social Sciences*, 1-19.
37. Mirza, Q., Pathan, H., Khatoon, S., & Hassan, A., (2021). Digital Age and Reading habits: Empirical Evidence from Pakistani Engineering University. *TESOL International Journal*, 16(1), 210-136.
38. Manel, M., Hassan, A., & Buriro, H. A. (2019). Learners' Attitudes towards Teachers' switching to the mother tongue (The Case of Secondary school learners in Algeria). *Indonesian TESOL Journal*, 1(1), 9-26.
39. Marton, F., & Säljö, R. (1976). On qualitative differences in learning: I—Outcome and process. *British journal of educational psychology*, 46(1), 4-11.
40. Nsor-Ambala, R. (2021). Learning Approaches: An Analysis of the Interaction between Education Level, Discipline of Study and Gender. *JOURNAL OF EDUCATION & PEDAGOGY*, 13(1), 1-15.
41. O'Dea, R. E., Lagisz, M., Jennions, M. D., & Nakagawa, S. (2018). Gender differences in individual variation in academic grades fail to fit expected patterns for STEM. *Nature communications*, 9(1), 1-8.
42. Ofoegbu, G. N., Okaro, S. C., & Okafor, G. O. (2018). Suitability, challenges and way forward for university accounting education in Nigeria. *The international journal of management education*, 16(3), 394-404.
43. Rivas, A., Gonzalez-Briones, A., Hernandez, G., Prieto, J., & Chamoso, P. (2021). Artificial neural network analysis of the academic performance of students in virtual learning environments. *Neurocomputing*, 423, 713-720.
44. Siedlecki, S. L. (2020). Understanding descriptive research designs and methods. *Clinical Nurse Specialist*, 34(1), 8-12.
45. Stokes, J. M., Yang, K., Swanson, K., Jin, W., Cubillos-Ruiz, A., Donghia, N. M., ... & Collins, J. J. (2020). A deep learning approach to antibiotic discovery. *Cell*, 180(4), 688-702.
46. Supriyatno, T., Susilawati, S., Hassan, A., (2020). E-learning development in improving students' critical thinking ability. *Cypriot Journal of Educational Sciences*, 15(5), 1099-1106. <https://doi.org/10.18844/cjes.v15i5.5154>

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47. Tambunan, H., Silitonga, M., & Sidabutar, U. B. (2021). Online and face-to-face composition in forming the professional competencies of technical teacher candidates with various learning style types. *Education and Information Technologies*, 26(2), 2017-2031.
48. Tan, L. M., & Laswad, F. (2018). Professional skills required of accountants: what do job advertisements tell us?. *Accounting Education*, 27(4), 403-432.
49. Tho, N. D., Trang, N. T., & Gregory, S. (2020). Positivity and quality of college life of business students: The mediating role of learning approaches. *Studies in Educational Evaluation*, 66, 100908.
50. Turner, M., & Baskerville, R. (2013). The experience of deep learning by accounting students. *Accounting Education*, 22(6), 582-604.
51. Us Saqlain, N., Shafqat, A., & Hassan, A. (2020). Perception Analysis of English Language Teachers about Use of Contextualized Text for Teaching ESP. *The Asian ESP Journal*, 16(5.1), 275-299.
52. Vallejo-Correa, P., Monsalve-Pulido, J., & Tabares-Betancur, M. (2021). A systematic mapping review of context-aware analysis and its approach to mobile learning and ubiquitous learning processes. *Computer Science Review*, 39, 100335.
53. Vizeshfar, F., & Torabizadeh, C. (2018). The effect of teaching based on dominant learning style on nursing students' academic achievement. *Nurse education in practice*, 28, 103-108.
54. Voyer, D., & Voyer, S. D. (2014). Gender differences in scholastic achievement: a meta-analysis. *Psychological bulletin*, 140(4), 1174.
55. Waheed, H., Hassan, S. U., Aljohani, N. R., Hardman, J., Alelyani, S., & Nawaz, R. (2020). Predicting academic performance of students from VLE big data using deep learning models. *Computers in Human behavior*, 104, 106189.
56. Waheed, H., Hassan, S. U., Aljohani, N. R., Hardman, J., Alelyani, S., & Nawaz, R. (2020). Predicting academic performance of students from VLE big data using deep learning models. *Computers in Human behavior*, 104, 106189.
57. Wolcott, S. K., & Sargent, M. J. (2021). Critical thinking in accounting education: Status and call to action. *Journal of Accounting Education*, 56, 100731.
58. Wright, C., Atkins, S., Polman, R., Jones, B., & Sargeson, L. (2011). Factors associated with goals and goal scoring opportunities in professional soccer. *International Journal of Performance Analysis in Sport*, 11(3), 438-449. *ces*, 3(2), 34-42.
59. Xie, K., Vongkulluksn, V. W., Lu, L., & Cheng, S. L. (2020). A person-centered approach to examining high-school students' motivation, engagement and academic performance. *Contemporary Educational Psychology*, 62, 101877
60. Zhang, L. F., & Sternberg, R. J. (2020). Intellectual Styles. In *Oxford Research Encyclopedia of Education*.