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Information Literacy Self-Efficacy and Academic Resilience among final year Pre-Service School Librarians: Implications for Library Mentorship

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Abstract

The study examined the relationship that exists between academic resilience and information literacy self-efficacy among final year pre-service school librarians in a selected University in Nigeria. This study adopted the correlational survey research design. Through multistage sampling technique, 60 final year students of Library and Information science were selected. The questionnaires such as Academic Resilience Scale (ARS) and Information Literacy Self-Efficacy Scale (ILSES) were used to collect data. Linear regression was used to test the null hypotheses. The correlation coefficient of $R=0.601$ shows that there was a moderate positive association between academic resilience and information literacy self-efficacy. The regression of ANOVA of $F(1,58) = 32.863$, $p = 0.00$ indicated that there was a significant moderate relationship between academic resilience and information literacy self-efficacy of final year pre-service school librarians. The findings further indicated that final year pre-service librarians' academic resilience is a significant predictor of their information literacy self-efficacy irrespective of gender and age.

Keywords: Information literacy self-efficacy, academic resilience, school librarians, Library mentorship

Introduction

In any society, information is increasingly regarded as an essential component of socioeconomic, socio-political, psychosocial, and cultural development (Naveed & Ain, 2017; Naveed & Anwar, 2014). The rapid evolution in the information and technological world has necessitated a paradigm shift in digital skills acquisition among pre-service school librarians (Kay & Ahmadpour, 2018). In an increasingly complex technological world, students and librarians face an abundance of information options (Ab-Halim et al., 2019). In order to avail of these information options, the end user must possess strong information literacy skills (Becker, 2018).

Information literacy is the ability to locate and use various information sources in order to solve a problem (Houshang-Nezhad et al., 2019). In this broad sense, information literacy

describes a set of skills and competencies that enable students to identify the need for more information and provide solutions. Information literacy entails recognizing when information is needed and locating, evaluating, and utilizing that information (Schroeder & Cahoy, 2010). In this way, students can master content, expand their scope of digital investigations, and become more self-regulated. Knowledge of information literacy is the awareness of the need for information, the ability to acquire and evaluate it, and the ability to use it effectively (Singh & Joshi, 2019). People who are information literate are also considered ready for lifelong learning (Mann, 2018). Achieving proficiency in information literacy is associated with some measure of challenges for the individuals (Bury, 2016; Kavulya, 2003). For individuals to be efficient in information literacy, it requires some level of confidence in their own abilities (Michalak et al., 2017). This kind of confidence in one's abilities is manifested as self-efficacy. A recent study suggests that people who do not have confidence in their abilities (e.g., low self-efficacy), as well as those who deliberately avoid challenging activities, are less likely to develop skills in information literacy that foster lifelong learning (Naveed, 2021; Spisak, 2018). On the other hand, people with a high sense of self-efficacy are more likely to develop such skills (Hatlevik et al., 2018). Therefore, information literacy self-efficacy (ILSE) comes when an individual becomes confident in his/her own abilities to use information literacy skills. Consequently, possession of Skills in information literacy is not sufficient; individuals should also feel confident in their ability to use these skills (Naveed & Mahmood, 2019). This, therefore makes it expedient that ILSE becomes a key factor in the academic life of pre-service school librarians.

ILSE therefore describes the level of self-confidence exerted by individuals in tasks related to accessing, retrieval, evaluation, and effective management of information for optimal productivity in an academic environment. According to Naveed and Mahmood (2019), ILSE refers to being confident in one's own ability to recognize when information is needed as well as locating, evaluating, and using it effectively and efficiently. The current information-based era calls for individuals to imbibe high self-efficacy views of their information-based skills in order to become more actively involved in multi-faceted problem solving and lifelong learning (Kurbanoglu, 2009). In line with this, Bandura (2006) also asserted that success is achieved by not only acquiring necessary skills, but also having the confidence to use them. As a result, students in the twenty-first century need more than just information literacy skills; they also need to be confident in their abilities. In order to be proficient in information literacy, individuals must develop self-efficacy and resilience.

It is impossible to overemphasize how important self-efficacy is in information literacy. In the view of Ross et al., (2016), a low sense of self-efficacy and an unwillingness to take on challenging activities reduce the likelihood that an individual will develop excellent information literacy skills that promote lifelong learning. Information seeking and lifelong learning in the twenty-first century require persistence and resilience, as well as self-efficacy. As Kurbanoglu (2009) suggests, when people view their competence paired with confidence positively, such people will efficiently solve information-based problems. It is pertinent to note that self-efficacy is a critical element that can help educators to better understand learners' behaviours and decision-making during tasks that involve the application of information literacy skills (Folk, 2016).

Literature has indicated that there are some psychological factors that impact directly on the ILSE of students (Aharony & Gazit, 2019; Hatlevik et al., 2018). Such factors include perceived information overload, individual differences, age of the students, gender and academic resilience. Academic resilience describes students' capacity to respond successfully in academic settings to hitches and adversity (Coronado-Hijón, 2017). In academic life, resilience typically describes the ability to resolve challenges, stress, and adversities and be able to sail through in academic domains (Martin, 2013; Martin & Marsh, 2006). As a result of ubiquitous internet access and the avalanche of data, researchers have studied the impact of digital technologies on cognitive outcomes. In many ways, digital technologies are capable of improving human cognitive and health development (Boman et al., 2016; Malanowski & Compano, 2007).

Digital technologies may pose risks to people, so it is neither possible nor desirable to completely protect individuals from them (Hankey & Ó Clunaigh, 2013; Reamer, 2015). This invariably may predispose individuals to distress, anxiety or cognitive overload. In this situation, individuals with high academic resilience are more likely to surmount the challenges arising from the information overload. In line with the increased use of digital technology, the rates of anxiety, fatigue, and burnout associated with webinars have significantly increased, due to the inability to maintain a clear work-life balance. Most people adopt a positive attitude and behaviour to reduce the chance of negative outcomes. A positive attitude and behaviour usually accompany academic resilience. In contrast, the digital revolution is evidently having an effect on individuals, who are demonstrating emerging forms of resilience within the digital environment.

Academic resilience development among pre-service school librarians and teachers is critical for ILSE and mentorship (Bowles & Arnup, 2016; Doney, 2013). Resilience is typically an individuals' ability to recover from adversity or to adapt well to it (Tsai & Freedland, 2022). In the age of technology, academic resilience is one the most effective ways of developing ILSE. Basically, academic resilience is a psychological state that permits individuals to succeed despite adverse conditions (Wang et al., 1997). Students who are academically resilient have a high motivation for achievement and high performance in the face of stressful situations and conditions that could negatively affect their performance. Researchers have identified students with academic resilience as those who succeed in school regardless of their circumstances (Waxman et al., 2003). It has been hypothesized that academic resilience is one of the strongest predictors of ILSE (Hutchings & Willey, 2014). According to Hutchings and Willet (2014), resilient students had high self-efficacy, persistence, and planning, as well as low anxiety and uncertain control. As reported by Cassidy (2015), resilience and emotional intelligence both predict coping at university, with resilience being the only significant predictor of coping subscales for grades, attendance, and studying. Further, Abiola and Udofia (2011) found that students with low resilience experience more stress, anxiety, and depression after completing major professional examinations.

Mentorship in school librarianship is an arduous task. The mentoring program is an essential component of pre-service school librarian training (Burke & Tumbleson, 2019). Mentoring plays a critical role in professional development, socialization, and leadership development for school librarians globally (Jordan, 2019). It has become imperative for pre-service school librarians to have high levels of ILSE because of the challenges posed by stress and other aversive conditions in the environment (Lorenzetti & Powelson, 2015). School librarianship mentorship is a strong, purposeful, and developmental relationship between a mentor and mentee with the aim of optimizing skill development within the school library service (Couture et al., 2020). It is well known that mentorship is beneficial to academic librarians during transitional periods in their careers (Evans, 2019). Numerous factors contribute to the success of academic librarians, such as mentorship programs, gender, prior mentoring experience, the culture of the library organization, and barriers to entering the field. The present study examined the relationship between ILSE and academic resilience among pre-service school Librarians in Universities in Nigeria.

Research Hypotheses

The following research hypothesis was tested:

Ho1: There is no significant relationship between ILSE and academic resilience among pre-service school librarians in Nigeria

Ho2: There is no significant relationship between ILSE and academic resilience among pre-service school librarians in Nigeria as moderated by gender

Ho3: There is no significant relationship between ILSE and academic resilience among pre-service school librarians in Nigeria as moderated by age

Methods

This study adopted the correlational survey research design. In a correlational research design, the researcher examines the relationships between variables without controlling or manipulating any of them (Heath, 2018). In statistics, correlation is a measure of the strength and/or direction of a relationship between two variables. There can be either a positive or a negative correlation. This method is often used to make inferences about possible relationships or to gather preliminary data to support further research and experimentation. The study was carried in the Federal Universities in South-East Zone of Nigeria. The population of this study comprised of 60 final year students of Library and information Science students at the University of Nigeria, Nsukka. The sample of the study is made up of 60 pre-service school librarians. Through purposive sampling, the researcher used the entire population of 60 pre-service school librarians in their final year at the department of library and information science, university of Nigeria, Nsukka

For the questionnaire, Kurbanoglu et al. (2006) developed the ILSE scale (ILSES). Participants are asked to rate the effectiveness of each item on the 28 item instrument using a seven-point Likert scale anchored by notations such as: 7=almost always true, 6=usually true, 5= often true, 4= occasionally true, 3=sometimes but infrequently true, 2=usually not true, 1=almost never true. In this evaluation, a mean of 6.01 to 7.00 indicates almost always true; 5.01 to 6.00 indicates usually true; 4.01 to 5.00 indicates frequently true; 3.01 to 4.00 indicates occasionally true; 2.01 to 3.00 indicates occasionally but infrequently true; 1.01 to 2.00 indicates almost

never true; and 0 to 1 indicates almost never true. Cronbach's alpha for ILSES was 0.92 in its original version.

The researcher, on the other hand, used Simon Cassidy's 30-item Academic Resilience Scale (ARS) (2015). It was used to assess students' reactions to academic adversity. The scale's items are a sample of relevant positively and negatively skewed behavioural and cognitive-affective responses that participants must rate as likely or unlikely on a 5-point Likert scale. In that case, disagree represents one and agree represents five. Positively phrased item scoring was reversed, so a high ARS-30 score indicated greater academic resilience. Permission to conduct this study was obtained from the Heads of Department, Library and Information Department of University of Nigeria, Nsukka. Thereafter, appointment was made with the Head, academic Library Unit for a meeting with the final year pre-service school librarians. On the day of data collection, the researchers were introduced to the final year pre-service school librarians. The objective of the research study was explained to the students after which they were issued with consent forms and those who accepted to participate in the study completed the forms. The selected students were then issued with questionnaires and it took approximately 30 minutes to complete the forms, after which they were debriefed. The quantitative data from questionnaires was analysed using both descriptive and inferential statistics. The inferential statistics such as linear regression analysis was used to analyse data. The level of significance (p)-value was set at 0.05 level. The level of significance (p)-value was set at 0.05 level.

Results

Table 1: Demographic variables of the respondents

Gender	Male	Female	
	32(53.3%)	28(46.7%)	
Age	17-20 12(20%)	21-23 27(45%)	24 and above 21(35%)

Table 1 shows the demographic variables of final year pre-service school librarians. The table indicated that male respondents were 32 in number representing 53.3% while females were 28 in number representing 46% of the respondents. The table equally showed that 12 respondents were within the age bracket of 17-20 denoting 20%, 27 respondents were within the age bracket of 21-23 denoting 45% and 21 respondents were above 24 years denoting 35%.

Table 2: Linear Regression analysis of academic resilience as a predictor of ILSE

		ILSE
Zero order correlations	Academic resilience	0.601 (N=60)
Model statistics	F(df)	32.863 (1, 58)
	P	0.00
	R ²	0.362
Predictor	B	0.559
	T	4.743
	P	0.00

a. Dependent Variable: ILSE

In table 2 Pearson product moment correlation was conducted to explore the relationship between academic resilience and ILSE of final year pre-service school librarians. The correlation coefficient of $R=0.601$ shows that there was a moderate positive association between academic resilience and ILSE. The regression of ANOVA of $F(1,58) = 32.863$, $p = 0.00$ indicated that there was a significant moderate relationship between academic resilience and ILSE of final year pre-service school librarians. Additionally, the coefficient of $r^2 = 0.362$ shows that 36% variation in final year pre-service librarians' ILSE was explained by their academic resilience. Furthermore, the data in table 2 equally revealed that a unit increase in students' academic resilience will lead to increase in students' ILSE by 0.559 units. Therefore, final year pre-service librarians' academic resilience is a significant predictor of their ILSE.

Table 3: Linear Regression analysis of academic resilience as a predictor of ILSE based on gender

		ILSE-based on gender	
		Male	Female
Zero order correlations	Academic resilience	0.597 (N=32)	0.610 (N=28)
Model statistics	F(df)	16.648 (1, 30)	15.416 (1,26)
	P	0.000	0.001
	R ²	0.357	0.372
Predictor	B	0.597	0.610
	T	4.080	3.926
	P	0.000	0.001

a. Dependent Variable: ILSE

In Table 3, the Pearson product moment correlation was conducted to explore the relationship between academic resilience and ILSE of final year pre-service school librarians

based on gender. The correlation coefficient of male ($R = 0.597$) and female ($R = 0.610$) indicate that there were moderate positive associations between academic resilience and ILSE of final year preservice male and female librarians. The regression ANOVA of males $F(1,30) = 16.648$ $p = 0.00$ and females $F(1, 26) = 15.416$ indicated that there were significant moderate relationship between academic resilience and ILSE of male and female final year pre-service school librarians. Additionally, the co-efficient of determination of males ($r^2 = 0.357$) and females ($r^2 = 0.372$) show that 35% variation in male and 37% variation in female final year pre-service librarians' ILSE respectively was explained by their academic resilience. Furthermore, the data equally revealed that a unit increase in male and female students' academic resilience will lead to an increase in students' ILSE of males by 0.597 units and females by 0.610 units. Therefore, final year pre-service librarians' academic resilience is a significant predictor of their ILSE irrespective of gender.

Table 4: Zero order correlations and regression analysis with Academic resilience as a predictor of ILSE (ILSE) based on age.

		ILSE based on age		
		17-20	21-23	24 and Above
Zero order correlations	Academic resilience	0.857 (N=12)	0.496 (N=21)	0.462 (N=27)
Model statistics	F(df)	27.571 (1, 10)	8.154 (1,19)	5.157(1,25)
	P	0.000	0.009	0.035
	R ²	0.734	0.246	0.213
Predictor	B	0.857	0.496	0.462
	T	5.251	2.856	2.571
	P	0.000	0.009	0.035

a. Dependent Variable: ILSE

In Table 4, Pearson product moment correlation was conducted to explore the relationship between academic resilience and ILSE of final year pre-service school librarians based on age. The correlation coefficients of age between 17-20 years ($R = 0.857$); 21-23 years ($R = 0.496$) and above 24 ($R = 0.462$) indicate that there were moderate positive associations between academic resilience and ILSE of final year pre-service librarians based on age. The regression of ANOVA of age 17-20 years $F(1,10) = 27.5$, $p = 0.00$; 21-23 $F(1, 19) = 8.154$, p

= 0.009; and 24 and Above $F(1,25) = 5.157$; $p = 0.035$ indicate that there were significant moderate relationships between academic resilience and ILSE of final year pre-service school librarians based on age. Additionally, the coefficient of age 17-20 ($r^2 = 0.734$), 21-23 ($r^2 = 0.246$) and 24 and above ($r^2 = 0.213$) show that 73%, 24% and 21% variations in ages (17-20, 21-23, and 24 years and above) of final year pre-service librarians' ILSE respectively was explained by their academic resilience. Also, the data equally revealed that a unit increase in students' academic resilience will lead to an increase in students' ILSE by 0.857 units for ages between 17-20, 0.496 units for ages between 21-23, and 0.496 units for ages above 24 years. Therefore, final year preservice librarians' academic resilience is a significant predictor of their ILSE irrespective of age.

Discussion

In this study, academic resilience and ILSE were examined in pre-service school librarians in their final year at a Nigerian university. In conclusion, the study found a moderately positive relationship between academic resilience and ILSE, indicating that a high level of academic resilience is positively correlated with ILSE of final year pre-service school librarians. As a result, an increase in students' academic resilience will increase their self-efficacy in information literacy. In the study by Ross et al (2016), intrinsic and extrinsic academic motivation were positively related to ILSE. Furthermore, Demiralay and Karadeniz (2010) discovered that student teachers' computer experience, skills, and frequency of computer and internet use, as well as access to computers and the internet, are significantly related to their perceptions of ILSE. In addition, Aharony and Gazit (2019) found that openness to experience, threat and challenge, as well as motivation, predicted students' ILSE. The study by Soroya et al. (2020) found that three subconstructs of emotional intelligence (EI): self-emotions appraisal, others-emotions appraisal, and use of emotions had a statistically significant positive effect on medical students' self-efficacy in information literacy. Kiliçakmak (2010) found that metacognitive, effort management, elaboration, and critical thinking strategies, as well as control belief, predict various dimensions of ILSE.

Martin and Marsh (2006) argue that academic resilience predicts three educational and psychological 'outcomes': enjoyment of school, class participation, and sense of self-worth. Data revealed that an increase in academic resilience leads to an increase in ILSE in males and females. As a result, academic resilience is a significant predictor of ILSE among final-year pre-service librarians regardless of gender. However, this contradicts Mwangi's (2015) findings, which found that females scored significantly higher in mean academic resilience than males. Similarly, Punter et al. (2017) found a significant gender difference in ILSE in favor of girls, confirming the widely held perception that girls and women face disadvantages in the modern information society. Demirel and Akkoyunlu (2017) found that prospective teachers' self-efficacy in information literacy did not differ based on gender. Another study by Naveed and Mahmood (2019) found no correlation between gender and students' perceived ILSE. Furthermore, the results showed that final year preservice librarians' academic resilience was linked to their perceived ILSE irrespective of their age. On the other hand, the age of the students appeared to be a significant predictor of ILSE (Naveed & Mahmood, 2019).

Conclusion

The study concludes that there was a moderate positive association between academic resilience and ILSE indicating that a high level of academic resilience is positively associated with ILSE of final year pre-service school librarians. This implies that a unit increase in students' academic resilience will lead to increase in students' ILSE. The findings of study indicate the critical role of academic resilience in predicting school librarians' ILSE. This is to say that the extent of the development of ILSE among pre-service school librarians may ultimately be determined by the level of their academic resilience. The findings of this study have implications for various stakeholders in trying to optimize the learning environment for pre-service school librarians in a highly complicated information explosion era. The findings of the study have implications to academic librarians, school librarians, lecturers, and the pre-service school librarians. First, the study recommends that academic library mentors should build in academic resilience into their mentoring programme to enhance the level of academic resilience among pre-service school librarians as that would improve their ILSE. Moreover, the lecturers in library and information science departments in the universities should develop specific orientation programmes to enhance the academic resilience of pre-service school librarians.

References

- Ab-Halim, F., Muda, W. H. N. W., & Izam, S. (2019). The Relationship between Employability Skills and Self-Efficacy of Students with Learning Disabilities in Vocational Stream. *Asian Journal of University Education*, 15(3), 163–174.
- Abiola, T., & Udofia, O. (2011). Psychometric assessment of the Wagnild and Young's resilience scale in Kano, Nigeria. *BMC Research Notes*, 4(1), 1–5.
- Aharony, N., & Gazit, T. (2019). Factors affecting students' information literacy self-efficacy. *Library Hi Tech*.
- Bandura, A. (2006). Guide for Constructing Self-Efficacy Scales. *Self-Efficacy Beliefs of Adolescents*, 5(1), 307–337.
- Becker, B. W. (2018). Information literacy in the digital age: Myths and principles of digital literacy. *School of Information Student Research Journal*, 7(2), 2.
- Boman, I.-L., Persson, A.-C., & Bartfai, A. (2016). First steps in designing an all-in-one ICT-based device for persons with cognitive impairment: Evaluation of the first mock-up. *BMC Geriatrics*, 16(1), 1–11.
- Bowles, T., & Arnup, J. L. (2016). Early career teachers' resilience and positive adaptive change capabilities. *The Australian Educational Researcher*, 43(2), 147–164.
- Burke, J. J., & Tumbleson, B. E. (2019). Mentoring in academic libraries. *Library Leadership & Management*, 33(4).
- Bury, S. (2016). Learning from faculty voices on information literacy: Opportunities and challenges for undergraduate information literacy education. *Reference Services Review*.
- Cassidy, S. (2015). Resilience building in students: The role of academic self-efficacy. *Frontiers in Psychology*, 6, 1781.
- Coronado-Hijón, A. (2017). Academic resilience: A transcultural perspective. *Procedia-Social and Behavioural Sciences*, 237, 594–598.
- Couture, J., Gerke, J., & Knievel, J. (2020). Getting into the club: Existence and availability of mentoring for tenured librarians in academic Libraries. *College & Research Libraries*, 81(4), 676.
- Demiralay, R., & Karadeniz, S. (2010). The Effect of Use of Information and Communication Technologies on Elementary Student Teachers' Perceived Information Literacy Self-Efficacy. *Educational Sciences: Theory and Practice*, 10(2), 841–851.
- Demirel, M., & Akkoyunlu, B. (2017). Prospective Teachers' Lifelong Learning Tendencies and Information Literacy Self-Efficacy. *Educational Research and Reviews*, 12(6), 329–337.
- Doney, P. A. (2013). Fostering resilience: A necessary skill for teacher retention. *Journal of Science Teacher Education*, 24(4), 645–664.
- Evans, L. (2019). Supervisors as mentors: How supervisory mentorship can supplement formal mentoring programs. *College & Research Libraries News*, 80(7), 403.

- Folk, A. (2016). Academic self-efficacy, information literacy, and undergraduate course-related research: Expanding gross's imposed query model. *Journal of Library Administration*, 56(5), 540–558.
- Hankey, S., & Ó Clunaigh, D. (2013). Rethinking risk and security of human rights defenders in the digital age. *Journal of Human Rights Practice*, 5(3), 535–547.
- Hatlevik, O. E., Throndsen, I., Loi, M., & Gudmundsdottir, G. B. (2018). Students' ICT self-efficacy and computer and information literacy: *Determinants and relationships*. *Computers & Education*, 118, 107–119.
- Heath, W. (2018). *Psychology research methods: Connecting research to students' lives*. Cambridge University Press.
- Houshang-Nezhad, M., Ajam, A. A., A'arab Sheybani, K., & Azarhomaun, N. (2019). Investigating the Role of the Components of Information Literacy in Acceptance of E-learning in Students of Technical & Engineering Faculty. *Quarterly Knowledge and Information Management Journal*, 5(4), 27–39.
- Hutchings, J., & Willey, M. (2014). Resilience and redirection: Information literacy in Louisiana higher education. *Portal: Libraries and the Academy*, 14(2), 239–253.
- Jordan, A. (2019). An examination of formal mentoring relationships in librarianship. *The Journal of Academic Librarianship*, 45(6), 102068.
- Kavulya, J. M. (2003). Challenges facing information literacy efforts in Kenya: A case study of selected university libraries in Kenya. *Library Management*.
- Kay, R. H., & Ahmadpour, K. (2018). Negotiating the digital maze of information literacy: A review of literature. *Journal of Educational Informatics*, 1(1).
- Kiliç-Çakmak, E. (2010). Learning strategies and motivational factors predicting information literacy self-efficacy of e-learners. *Australasian Journal of Educational Technology*, 26(2).
- Kurbanoglu, S. (2009). Report of the UNESCO “Training the Trainers in Information Literacy”(“TTT”) Workshop Ankara, Turkey, September 3–5, 2008. *The International Information & Library Review*, 41(4), 252–256.
- Kurbanoglu, S. S., Akkoyunlu, B., & Umay, A. (2006). Developing the information literacy self-efficacy scale. *Journal of Documentation*.
- Lorenzetti, D. L., & Powelson, S. E. (2015). A scoping review of mentoring programs for academic librarians. *The Journal of Academic Librarianship*, 41(2), 186–196.
- Malanowski, N., & Compano, R. (2007). Combining ICT and cognitive science: Opportunities and risks. *Foresight*.
- Mann, L. (2018). Making a place for makerspaces in information literacy. *Reference & User Services Quarterly*, 58(2), 82–86.
- Martin, A. J. (2013). Academic buoyancy and academic resilience: Exploring ‘everyday’and ‘classic’resilience in the face of academic adversity. *School Psychology International*, 34(5), 488–500.

- Martin, A. J., & Marsh, H. W. (2006). Academic resilience and its psychological and educational correlates: A construct validity approach. *Psychology in the Schools*, 43(3), 267–281.
- Michalak, R., Rysavy, M. D., & Wessel, A. (2017). Students' perceptions of their information literacy skills: The confidence gap between male and female international graduate students. *The Journal of Academic Librarianship*, 43(2), 100–104.
- Mwangi, C. N. (2015). Predictors of academic resilience and its relationship to academic achievement among secondary school students in Kiambu county, Kenya [PhD Thesis]. Kenyatta University.
- Naveed, M. A. (2021). Information literacy self-efficacy of scientists. *Information Research*, 26(1), 26.
- Naveed, M. A., & Ain, R. (2017). Political Ignorance and Voting Participation of Rural Dwellers in Pakistan. *Journal of Politics and International Studies*, 3(2), 19–33.
- Naveed, M. A., & Anwar, M. A. (2014). Non-agricultural information needs of rural Pakistanis. *Pakistan Library and Information Science Journal*, 45(2), 2–11.
- Naveed, M. A., & Mahmood, M. (2019). Information literacy self-efficacy of business students in Pakistan. *Libri*, 69(4), 303–314.
- Punter, R. A., Meelissen, M. R., & Glas, C. A. (2017). Gender differences in computer and information literacy: An exploration of the performances of girls and boys in ICILS 2013. *European Educational Research Journal*, 16(6), 762–780.
- Reamer, F. G. (2015). Clinical social work in a digital environment: Ethical and risk-management challenges. *Clinical Social Work Journal*, 43(2), 120–132.
- Ross, M., Perkins, H., & Bodey, K. (2016). Academic motivation and information literacy self-efficacy: The importance of a simple desire to know. *Library & Information Science Research*, 38(1), 2–9.
- Schroeder, R., & Cahoy, E. S. (2010). Valuing information literacy: Affective learning and the ACRL standards. *Portal: Libraries and the Academy*, 10(2), 127–146.
- Singh, D., & Joshi, M. K. (2019). Information literacy competency of Post graduate students at Haryana Agricultural University, Hisar.
- Soroya, S. H., Iqbal, M. M. Y., Soroya, M. S., & Mahmood, K. (2020). Predictors of information literacy self-efficacy among medical students: PLS-SEM analysis. *Library Hi Tech*.
- Spisak, J. R. (2018). Secondary student information literacy self-efficacy vs. Performance. Virginia Commonwealth University.
- Tsai, J., & Freedland, K. E. (2022). Introduction to the special section: Resilience for physical and behavioral health. *Health Psychology*, 41(4), 243.
- Wang, M. C., Haertel, G. D., & Walberg, H. J. (1997). Fostering Educational Resilience in Inner-City Schools. *Publication Series No. 4*.
- Waxman, H. C., Gray, J. P., & Padron, Y. N. (2003). Review of research on educational resilience.