Academic Self-Concept as Correlate of Academic Achievement in Cataloguing among Master Degree Students in Library and Information Science Schools in Southern Nigeria

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Abstract
The study investigated academic self-concept as correlate of academic achievement in cataloguing among master degree students in library and information science schools in Southern Nigeria. Descriptive survey design of correlational type was used and total enumeration was adopted to include all the 420 master degree students with 360 valid response rates for the study. The results revealed that the academic achievement of master degree students in LIS schools was good. They had positive academic self-concept. Academic self-concept and academic achievement of master degree students' in cataloguing among the respondents was inversely correlated. The study concluded that master degree students in library schools had good mastery of cataloguing at knowledge, comprehension, and evaluation levels but deficient in application, analysis, and creative aspects. Master degree students should improve their academic performance at application, analysis and creative aspects in cataloguing in order to have adequate knowledge of cataloguing courses.

Keyword: Academic Self-Concept, Cataloguing, Achievement, Master degree student, Library and Information Science

Introduction
Cataloguing, the systematic description of library information resources is the cornerstone of librarianship and hence, compulsory for all students in Library and Information Science (LIS) schools, including master degree students who are the future managers of the activity in libraries. The Compulsory status of cataloguing as of today implies that master degree students must register and pass the course, at least, with a 45% score before they can graduate. In the University of Limpopo, South-Africa and in Nigeria for examples, cataloguing module is offered as a mandatory unit for obtaining an information science certificate (Mahlatji, Maphopha and Dikotla, 2016; Adamu, 2018).

Cataloguing is the description of any information carrier to point out the important bibliographic features. It has two dimensions, namely descriptive and subject. Descriptive cataloguing, as the term implies is the description of any information carrier to identify and characterise the information carrier's physical and bibliographic features, as well as deciding which name or titles to be used as access points (Rafiu, 2021). Subject cataloguing involves assigning descriptive keywords to a bibliographic resource (Schools Catalogue Information, Services, 2020). Subject cataloguing is the analysis of the subject matter of the information materials, including allocation of class marks (classification).

Classification assists to order things according to their similarity and unlikeness, and it is also a technique employ in segregating or grouping of things. It consists of a procedure for arranging, grouping, coding and organising books and other library materials on shelves or entries of a catalogue according to their subject in a systematic, sequential and assistive way by allotting the retrieval numbers with the aid of a classification system (Librarianship Studies and Information Science, 2023). Cataloguing and classification depict an essential intelligent pillar which the work of the library discipline depends. They focus on the interpretability of catalogue entries and the discovering of information; and are basic to the success of any library function (Cabonero and Dolendo, 2013; Adeleke and Olorunsola, 2015).

It would be vital for the masters' degree learners in library schools to possess cataloguing and classification knowledge skills to prepare them well for the professional practice. Nonetheless, existing research indicates that majority of students in LIS schools in view cataloguing and classification as challenging subjects. Popular notions claimed that cataloguing presents the greatest challenging task in the Librarians' Licensure Examination. Nearly all candidates for the certified examination failed in this subject. Generally, most candidates anticipate that if ever they could not pass, it would be because they failed in cataloguing and classification (Cabonero and Dolendo, 2013). It is evident from the statement that fear and phobia for cataloguing and classification could result in poor academic achievement in relation to other library courses that are not considered difficult.

Academic achievement is a measure of educational performance that indicates how good a student has finished particular goals which are the major target of activities in instructional contexts, such as schools, colleges, and universities (Steinmayr, Meinbner, Weidinger, and Wirthwein, 2020).

Academic achievement is also the completion of any of the educational bench-marks such as secondary school, diplomas and undergraduate programmes (Basri, Alandejani, and Almadani, 2018). Academic achievement includes various learning domains and is a complex construct. For instance, academic achievement describes whether a learner can proceed to higher education, earns educational degrees and certificates; and based on the educational degrees and certificates someone attains could also influence one's vocational career after graduation (Steinmayr *et al*., 2020).

The primary focus of this study is the academic achievement in cataloguing and classification of master degree students. A master degree is an academic qualification granted at the postgraduate level to individuals who have successfully undergone study demonstrating a high level of expertise in a specific field of study or area of professional practice. Masters' degree students are those who pursue higher degrees after a bachelor degree (Haidar, 2021). Masters' degree students of LIS schools need to have a positive academic self-concept among other requirements for high academic achievement in cataloguing and classification subjects.

Academic Self-Concept (ASC) is concerned with how students feel about themselves as learners. ASC described a person's self-appraisal in relation to a particular field of study or competence. It is the conviction of an individual about their own degree of proficiency or aptitude in a specific academic realm (Liu 2010; Yang, Zhang, Bloud and Datu, 2023). There are two stages: a broad academic self-concept of your level of overall excellence and a cluster of knowledge area self-beliefs that describe how proficient you are in mathematics, science, cataloguing, language arts, social science and other subjects. Students who demonstrate a high academic self-concept assume they can succeed in their studies and pursue achievement in school, in contrast to those who possess a low academic self-concept (New South Wales Department of Education, 2023) Generally, learners with poor ASC is unmotivated and uninterested, which might lower learning potential and lead to unsatisfactory learning and academic achievement.

Good academic self-concept could motivate students' learning and academic achievement. Academic performance in the past had a beneficial influence on students' subsequent ASC, and students' prior ASC level had a significant effect on their later academic achievement (Li, Xu and Xia, 2020). It is expected that if the master degree students in LIS schools cultivate an encouraging ASC, they would learn cataloguing and classification better and this would invariably promote

excellent academic achievement. It is against this backdrop that the study investigates the correlate of academic self-concept and academic achievement in cataloguing among master degree students in library and information science schools in Southern Nigeria.

Statement of the Problem

Cataloguing is one of the most important subjects taught in library schools. Cataloguing is often referred to as the hub, pivot, heart, and core of librarianship. Cataloguing has two aspects: cataloguing and classification and both are compulsory courses in LIS because they are indispensable. However, extant literature has shown that despite the compulsory status of these courses, most students in LIS schools often express apprehension over the subjects. Consequently, the academic achievement of students in cataloguing and classification is known to be poor relative to other library courses. Existing literature indicates that students with a positive academic self-concept tend to achieve higher academic success, while those who have a poor academic self-concept find it harder to learn, which culminates in an unsatisfactory academic achievement. Previous studies on cataloguing achievement have focused on undergraduates and not on masters' degree students who are the future managers of library activities. It is in this context that the study investigates self-concept as correlate of academic achievement in cataloguing among masters' degree students in library and information science schools in Southern Nigeria.

Objectives of the Study

The main objective of the study was to investigate correlate of academic self-concept and academic achievement in cataloguing among master degree students in LIS schools in Southern Nigeria.

The specific objectives were to:

i.   determine the level of academic achievement of masters' degree students in cataloguing in LIS schools in Southern Nigeria;

ii.   ascertain the level of academic self-concept of masters' degree students in cataloguing in LIS schools in Southern Nigeria; and

iii.   find out the relationship between the academic self-concept and academic achievement of master degree students in cataloguing in LIS schools in Southern Nigeria.

Research Questions

1. What is the level of academic achievement of masters' degree students in cataloguing in LIS schools in Southern Nigeria?

2. How is the academic self-concept of masters' degree students in cataloguing in LIS schools in Southern Nigeria?

Hypothesis

There is no significant relationship between the academic self-concept and the academic achievement of masters' degree students in cataloguing in LIS schools in Southern Nigeria.

Literature Review

Academic achievement is one the most important outcomes of formal educational experiences and there is no doubt to the vital role academic achievement could play in student's academic success (immediate) and later life (Moore, 2019). Academic achievement could be classified as low, average or high achievement. Low achievement refers to the lower-than-expected standard of a student achievement, such as high-intelligence student, and when the degree of academic achievement is in the middle (average) or even lower levels, there is clearly a gap between expected achievements and real status. On the other hand, high achievement refers to a student with a higher academic achievement than expected (Cheng, Wang and Liu, 2019). Investigations on cataloguing achievement are not unanimous in their findings. While positive achievements were reported by some authors, others reported negative achievement in cataloguing.

Ogunniyi and Nwalo (2015) adopted a correlational research design to investigate the academic achievement of undergraduates in cataloguing and classification in Southern Nigeria. The authors found that the achievement of the undergraduate students in cataloguing and classification in library and information science schools in Southern Nigeria was above average. On the other hand, Atinmo and Oyelude (2016) reported a negative academic achievement in cataloguing and classification. The authors stated that year after year, lecturers teaching the course have to contend with large numbers of students because of the students who had failed the course in the previous session and had to carry it over to the following session. Mahlatji, Maphopha and Dikotla (2016) also reported a negative academic achievement when the authors stated that the re-evaluation of

students' mastery in classification examinations and terminal evaluation were poor in spite of extra tutorials, peer discussion, and practical in the University of Limpopo. A study by Rafiu and Nwalo (2016), moreover, showed that the academic achievement of the students in cataloguing and classification was below average (44.4%).

When students have dislike for either the lecturer or the course materials or both, due to low academic achievement, is very unlikely for them to have a positive academic self-concept.

The self-concept plays a significant role in directing students' efforts to their academic work. Academic self-concept is the perception that a student has about his own academic abilities. It constitutes one of the most relevant variables in academic domain, because of its influence on learning and academic achievement (Sakiz, Ozdaş, Goksu and Ekinci, 2021). Literature has also shown that there are two different perspectives of academic self-concept. The first perspective posited that like the general self-concept, academic self-concept is also hierarchical and multi-dimensional based on specific subjects (Dramanu and Balarabe, 2013; NSW Department of Education, 2023). For instance, a student may have academic self-concept in a specific subject domain like mathematics, literature or cataloguing. In other words, important academic outcomes are substantially related to academic self-concept but are relatively unrelated to non-academic component of general self-concept.

The second perspective viewed academic self-concept uni-dimensionally, such that academic achievement is influenced by the broad notion of academic self-concept often measured by the overall average point grade. A study by Young, Zhang, Bloud, and Datu (2023) has shown that is better to study self-concept from the angle of academic self-concept in relation to academic achievement than examining the concept from the global perspective (self-concept). The researcher concurred with the new trend (specific domain). Therefore, this study focuses on the academic achievement in cataloguing of the master degree students of library and information science in relation to academic self-concept and not from the global perspective of self-concept.

There are other several empirical studies that revealed remarkable relationship between the academic self-concept and students' academic achievement (Jaiswal and Choudhuri, 2017; Barbaro-Brown, 2021; Hau and Wang, 2023).Recent studies that revealed remarkable positive connections between academic self-concept and academic achievement were Alrajhi, and Aldhafri (2024), Hong (2024) and Verhofste *et al.* (2024). However, there are studies that at variance with

the positive significance link between academic self-concept and academic achievement. Mashebe and Zulu (2022) found that there was no statistically significant correlation between the academic self-concept scores and academic achievement of the learners in agricultural science. The study by Alkhateeb, Abushihab, Alkhateeb and Alkhateeb (2022) also found a significant but weak relationship between the academic self-concept and the academic achievement of students.

Methodology

The correlational type of descriptive survey design was employed in the course of the investigation. It also refers to the type of research that purports to gathering evidence on current condition of a phenomenon; and a reliable representation of circumstances, people and events (Rahi, 2017). The study applied the total enumeration method to choose all the master degree students in all the 10 LIS schools in Southern Nigeria. Complete enumeration technique was preferred because the population of the master degree students is manageable in LIS schools. All the master degree students offer courses in cataloguing and classification compulsorily. Therefore, all the 420 master degree students of LIS schools in Southern Nigeria participated in the inquiry but the valid response rate was 360. The instruments employed for data gathering in the investigation were the questionnaire and achievement test. The questionnaire instrument was adapted but the academic achievement test was self-designed. Google Form was the template used for the questionnaire instrument. Extended Google Form (EGF) was the template used for the 25 items academic achievement test of master degree students in cataloguing and classification. The 25- item questions covered the six aspects of the revised Bloom's cognitive domain: knowledge, comprehension, application, analysis, evaluation and creation.

Descriptive and inferential statistics were adopted for the analysis of the research data. The data were collated and analysed using descriptive statistics like percentages, frequency count, mean and standard deviation. Research questions 1-2 were analysed using percentage mean standard deviation. The null hypothesis was tested using the Pearson Product Moment Correlation. The data obtained was collated, coded and analysed using Statistical Package for Social Sciences (IBM SPSS) version 20.0.

Results

The results of the investigation are presented in the tables below:

Table 1: Level of Academic Achievement of Masters' Degree Students in Cataloguing in LIS Schools

Q	EXC (5)	G (4)	AV (3)	F (2)	P (1)	MEAN
1	1(0.3%)	5(1.4%)	9(%)	55(%)	290(%)	1.26
2	33(9.2%)	110(30.6%)	181(50.3%)	15(4.2%)	21(5.8%)	3.33
3	13(3.6%)	57(15.8%)	41(11.4%)	98(27.2%)	151(41.9%)	2.12
4	27(7.5%)	97(27%)	53(14.7%)	59(16.4%)	124(34.4%)	2.57
5	65(18.1%)	157(43.6%)	93(25.8%)	13(3.6%)	32(8.9%)	3.58
6	90(25%)	132(36.7%)	96(26.7%)	18(5%)	24(6.7%)	3.68
7	22(6.1%)	68(18.9%)	111(30.8%)	71(19.7%)	88(24.4%)	2.63
8	23(6.4%)	79(21.9%)	90(25%)	87(24.2%)	81(22.5%)	2.66
9	11(3.06%)	49(13.6%)	66(18.3%)	114(31.7%)	120(33.3%)	2.21
10	20(5.6%)	72(20%)	91(25.3%)	88(24.4%)	89(24.7%)	2.57
11	29(8.1%)	99(27.5%)	91(25.3%)	58(16.1%)	83(23.1%)	2.81
12	53(14.7%)	120(33.3%)	82(22.8%)	72(20%)	33(9.2%)	3.24
13	21(5.8%)	77(21.4%)	103(28.6%)	89(24.7%)	70(19.4%)	2.69
14	12(3.3%)	33(9.2%)	33(9.2%)	112(31.1%)	170(47.2%)	1.90
15	13(3.6%)	54(15%)	68(18.9%)	115(31.9%)	110(30.6%)	2.29
16	19(5.3%)	138(38.3%)	110(30.6%)	23(6.4%)	70(19.4%)	3.04
17	23(6.4%)	148(41.1%)	111(30.8%)	40(11.1%)	38(10.6%)	3.22
18	24(6.7%)	140(38.9%)	94(26.1%)	49(13.6%)	53(14.7%)	3.09
19	11(3.1%)	49(13.6%)	30(8.3%)	121(33.6%)	149(41.4%)	2.03

20	10(2.8%)	81(22.5%)	101(28.1%)	70(19.4%)	98(27.2%)	2.54
21	27(7.5%)	131(36.4%)	100(27.8%)	69(19.2%)	33(9.2%)	3.14
22	14(3.9%)	97(26.9%)	87(24.2%)	70(19.4%)	92(25.6%)	2.64
23	7(1.9%)	50(13.9%)	48(13.3%)	106(29.4%)	149(41.4%)	2.06
24	17(4.7%)	122(33.9%)	80(22.2%)	78(21.7%)	63(17.5%)	2.87
25	8(2.2%)	55(15.3%)	90(25%)	91(25.3%)	116(32.2%)	2.30
Weighted Mean = 2.66						

Key: Excellent (EXC), Good (G), Average (A), Fair (F) Poor (P)

Table 1a shows the level of academic achievement of the respondents in cataloguing in LIS schools in Southern Nigeria. It was found that $(\bar{x} = 1.26)$ was the least mean and $(\bar{x} = 3.68)$ was the highest mean. The inferences that could be drawn based on the weighted mean $(\bar{x} = 2.66)$ are that the academic achievement of the participants in cataloguing in LIS is above average.

Table 2: Academic Self-Concept of the Masters' Degree Students in Cataloguing in LIS Schools in Southern Nigeria

S /N	Statement:	SA	A	D	SD	Mean	S D	Remark
1	I find cataloguing and classification interesting and challenging.	166 46.1%	166 46.1%	8 2.2%	20 5.6%	3.33	1.52	Accepted
2	I am good at combining ideas in ways that others might not try.	68 18.9%	198 55.0%	65 18.1%	29 8.1%	2.85	1.18	Accepted
3	I can extract subject(s) effectively from subject headings.	83 23.1%	202 56.0%	54 15.0%	21 5.8%	2.96	1.26	Accepted
4	I am good at assigning the class mark to a catalogued information resource.	90 25.0%	187 51.9%	61 16.9%	22 6.1%	2.96	1.26	Accepted
5	I am usually interested in practical cataloguing.	158 43.9%	155 43.0%	32 8.9%	15 4.2%	3.27	1.48	Accepted
6	I have generally performed better in cataloguing and	68 18.9%	137 38.1%	108	47 13.1%	2.63	1.04	Accepted

#	Statement					Mean	SD	Decision
	classification courses than in other courses.			30.0%				
7	I do not do well on tests that require much practical skills like classification.	25 %6.9	83 23.1%	126 35.0%	126 35.0%	2.02	0.64	Rejected
8	I enjoy doing cataloguing and classification assignments.	112 31%	162 45.0%	65 18.1%	21 5.9%	3.01	1.30	Accepted
9	Relative to most LIS master students, I can quickly and correctly extract class mark from the classification schemes.	76 21%	166 46.1%	86 23.9%	32 8.9%	2.79	1.15	Accepted
10	I have good practical knowledge in cataloguing.	86 23.9	184 51.1%	68 18.9%	22 6.1%	2.93	1.24	Accepted
11	My course mates always come to me for guidance in cataloguing and classification assignment.	72 20%	126 35.0%	90 25.0%	72 20.0%	2.55	0.99	Accepted
12	I would take cataloguing and classification courses even if they are not compulsory.	115 31.9%	162 45.0%	58 16.1%	20 5.6%	3.01	1.31	Accepted
13	I have interest in becoming as a cataloguer on graduation.	144 40%	115 31.9	58 16.1%	43 11.9%	3.00	1.30	Accepted
14	I love studying cataloguing and classification.	130 36%	148 41.1%	54 15.0	28 7.8%	3.06	1.33	Accepted
15	I can achieve academic excellence in cataloguing and classification if I work harder.	194 53.9%	130 36.1%	18 5.0%	18 5.0%	3.39	1.57	Accepted
16	I like cataloguing and classification courses.	137 38.1%	169 46.9%	27 7.5%	27 7.5%	3.16	1.40	Accepted
17	I often remember what I have learned in cataloguing and classification.	112 31%	191 53.1%	47 13.1%	10 2.8%	3.13	1.37	Accepted
18	I often understand cataloguing course materials when I read them.	115 31.9%	187 51.9%	50 13.1%	8 2.2%	3.14	1.38	Accepted
19	I do well in cataloguing and classification tests.	101 28.1%	187 51.9%	43 11.9%	15 4.2%	2.96	1.29	Accepted

20	I always wish cataloguing and classification lecture would continue for longer periods.	97 26.9%	184 51.1%	61 16.9%	18 5.0	3.12	1.29	Accepted
	Weighted mean =2.96							

Key: SA= Strongly Agree, A= Agree, SD= Strongly Disagree, D= Disagree

Table 2 presents the descriptive analysis of mean and standard deviation on the level of academic self-concept of the master degree students in cataloguing in LIS schools in Southern Nigeria. The Table reveals that the respondents indicated that: they found cataloguing and classification interesting and challenging with mean and standard deviation of 3.33 and 1.52 respectively; good at combining ideas in ways that others might not try it with mean and standard deviation of 2.85 and 1.182 respectively among other responses. The highest mean $(\bar{x} = 3.39)$ while the lowest mean $(\bar{x} = 2.02)$. The inferences that could be drawn from the discussion are that based on the overall mean (weighted mean 2.96) the academic self-concept of the master degree students in cataloguing is positive in LIS schools in Southern Nigeria.

Table 3: Relationship between Academic Self-Concept and Academic Achievement of Masters' Degree Students in Cataloguing in LIS Schools in Southern Nigeria.

Variables	Means	Standard Deviation.	N.	R.	P.	Remarks
Academic self-concept	122.2800	47.29123	360	-0.209	0.000064	Significant.
Academic achievement	194.8800	80.25341	360			
Significant at 0.05 level						

Table 4.7 presents the Pearson correlation coefficient in order to determine the relationship between academic self-concept and academic achievement of master degree students in cataloguing in LIS schools in Southern Nigeria. The Table indicates a significant inverse relationship since probability value p is less than the significance level 0.05, (r (360) = -0.209, p (0.000064) <0.05). Therefore, the hypothesis is rejected.

Discussion of Findings

On the level of academic achievement of masters' degree students of LIS schools in Southern Nigeria. The finding indicates that the academic achievement of the masters' degree students of LIS schools in Southern Nigeria is good. The finding is similar to Ogunniyi and Nwalo (2015) who found that academic achievement of the undergraduate students in cataloguing and classification was above average. The finding is at variance with that of Mahlatji, Maphopha and Dikotla (2016) who reported a low academic performance of students in classification tests and final assessment in spite of extra tutorials, peer discussion, and practical. Rafiu and Nwalo (2016) also discovered that the students' academic performance in classification and cataloguing was below average. Other studies which report low academic achievement in cataloguing include: Adamu (2018) and Rafiu (2021).

Furthermore, the results of this study demonstrated that master's degree students' academic achievement in cataloguing and classification was below average in terms of knowledge, comprehension, and evaluation, but below average in terms of application, analysis, and creative aspects of the subject. The finding is in agreement with Cabonero and Dolendo (2013) who reported that the librarians from the five schools assessed scored higher mark in descriptive cataloguing and scored less mark in classification.

The result on the level of academic self-concept of master degree students in cataloguing in LIS schools in Southern Nigeria is positive. The finding is consonant with the study by Jaiswal and Choudhuri (2013) , Rady, Kabeer, and El-Nady (2017) who found that a student with positive academic self-concept is confident, has good interests, and objective. The current study further reveals that there is a consequential inverse connection between academic self-concept of master degree students and academic achievement. A study in support of the present finding is Mashebe and Zulu (2022) who discovered that there was no statistically significant correlation between the self-concept scores and academic achievement of the learners in Agricultural Science. Alkhateeb, Abushihab, Alkhateeb and Alkhateeb (2022) also found a significant but weak relationship between the academic self-concept and the academic achievement. Unlike the finding of the current study, Li *et al.* (2020) discovered that the academic self-concept and academic achievement beneficially and significantly linked interdependently. Other recent studies that were at variance

with the findings of the current study were Hua and Wang (2023), Yang, Zhang, Bloud and Datu (2023), Alrajhi, and Aldhafri (2024), Hong (2024) and Verhofste *et al.* (2024).

Conclusion

Master degree students in LIS schools in Southern Nigeria have positive self-concept and view themselves as being capable to excel in cataloguing achievement. The academic achievement of master degree students in LIS schools in Southern Nigeria is good. The academic self-concept is inversely significant to academic achievement in cataloguing in LIS schools in Southern Nigeria. However, the academic achievement of master degree students in cataloguing LIS schools in Southern Nigeria is poor at application, analysis, and creative areas of cataloguing and classification courses.

Recommendations

Having investigated the academic self-concept as a correlate of academic achievement in cataloguing among master degree students in LIS schools in Southern Nigeria, the following recommendation are hereby made:

1.   The masters' degree students in LIS schools in Southern Nigeria should sustain their performance at knowledge, comprehension, and evaluation levels. They should also improve their performance at application, analysis, and creative aspects in cataloguing and classification to have adequate knowledge of the courses.

2.   The academic self-concept of the masters' degree students in cataloguing was positive in LIS schools in Southern Nigeria; this should be sustained to spur them to strive for success.

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