



Original Research Article

Supremacy of Arts-Based research techniques and critical thinking in a mixed method milieu: A survey of Art Education postgraduate degree theses and dissertations for quantitative inculcations in the department of Fine and Applied Arts, University of Nigeria, Nsukka (2005-2019)

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The current study deprecates the proliferation of overriding statistical tendencies and other science-led techniques in arts-based quantitative research. The soft quantitative inculcation in arts-based research being canvassed was exemplified by the researchers in investigating a collection of past Art Education Postgraduate students' theses in the Department of Fine and Applied Arts, University of Nigeria, Nsukka. 35 theses were studied in three phases; 2005-2009, 2010-2014 and 2015-2019. The specific objectives of the study were to: (i) find out by topics the frequency of coverage from the domiciliary department to adjacent faculties, (ii) find out the trend of methodology scopes covered, and (iii) assess the frequency of balance and dominance between the qualitative and quantitative approaches. The instruments were the: (i) Art Education Postgraduate Theses and Dissertation Selection Graph (AEd-PTDSG) and (ii) Arts-Based Research Techniques Supremacy Check Chart (ABRT-SCC). Findings showed that in the department, there have been of late, concerted efforts to decelerate the over flogging of arts-based quantitative research with science-based techniques and data verifications, especially in the last of the three phases. It is recommended that in cases of quantitative research in the humanities or any other shade of cross-disciplinary interventions, simple percentage ratings, as exemplified in this study should be used. The YES and NO frequency tables and other simplistic methods could be adopted too. In effect it could be made as alpha-numeric as possible, not massively numeric or statistical in methodology, in order for the art-based study not to lose its baseline originality. Other departments in the Arts Faculty should sustain their originalities by sticking to the very dictates that define pedagogy and research in such disciplines when cross-disciplinary research is undertaken.

Key words: Domiciliary; overriding tendencies; proliferation; decelerate; techniques.

INTRODUCTION

Educational expressions are as calibrated as they are critically confrontational, at least judging by pedagogical and research methodological instances. From the day of the early philosophers like Socrates, Aristotle and Plato, learning and its quests challenged something within humanity which, interestingly, only humans can decipher. Within the spheres of the informal, formal and non-formal education very many sorts of research take place every day, and they all pivot the human interrogation about self, environment and the quest to know more. Man, is therefore, a serial searcher. And when searching becomes often repeated, in its entirety, or partially, the term 'research' throws up, meaning to repeat search. The quest to ensure and examine sameness or differentials of findings would always necessitate the repeat or redoing of search. Research is a systematic educational investigation, with foreseeable or unforeseeable methodologies, which results in knowledge generation. There are very many disciplinary idioms that portray educational investigations; their applicability depends on the nature of a given discipline.

According to Maggi and Katherine (2014), arts-based inquiry not only involves the artist (of which ever type) but also those who are involved in the art work in some way, including the participant and possible other researchers. Thus, researchers and participants use art for personal exploration to make sense of the problem or medium, so that the research and the artistic process overlap.

Arts-Based Research (ABR) represents all the research types guided by or found within the visual, performing, literary and other art sub-regions. Arts-based simply means that it is not scientific in any sense. However, cross-disciplinary tendencies in contemporary studies have made a combo of methodologies possible. In surveying the uniqueness of research in the creative arts Smith and Dean (2009) averred that the Arts-based Research (ABR) is bringing with it dynamic new ways of thinking about research and new methodologies for conducting it.

Famous and promising research outcomes like those of creative works undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of humanity, culture and society, produce outcomes whose stock of knowledge can be used to devise new applications (Organisation for Economic Cooperation and Development, 2002).

In scientific research drawings, paintings and models can be used to elicit information, meaning that art can be found useful in scientific research. Likewise, in the arts, statistical calculations and use of numeric data can be found, to situate findings where numeric representations are preferred. Educational research, therefore, could be discipline based or cross-disciplinary in nature. Research also includes direct interventions in the areas of Research and Development (R&D) aimed at improving commerce and industry, as well as the private sector of the economy. Generally, economic needs can necessitate research outside of the academic environment, and these researches can be undertaken using either scientific, artistic and other approaches.

The visual art community places great significance on the art object and the art making process. Consequently, many visual artists wish to see a form of research in which art and art making are central; that is to say, that art making process is understood as a form of research and the art object as a form of knowledge. If one takes this position and accepts the common understanding of research then one must be able to explain how visual art contributes to knowledge (Scrivener, 2002). The above inference shows that ordinarily art making is considerable as research, process and product. The investigative, explorative and repetitive applications encapsulated in visual art practice make it research on its own. It is therefore wrong to assume that except a research work is verified by scientific proofs or calculations it is not research enough.

Between Art Education and Arts Education

The term Art Education and Arts Education have often been misconstrued. It is important at this point to clarify this issue. Averagely in a department of Fine and Applied Arts of any tertiary institution there are the departmental sections of: Painting, Sculpture, Graphics, Ceramics, and Textile Design. In recent years Fashion Design emerged as an independent section from Textile Design, as exemplified in the University of Nigeria. Again there are the departmental theory sections of: Art Education, Art History and Art Administration and Management, also exemplified in the University of Nigeria. The Art Education section theorises everything within the studio art practice pre, during and post. In other words Art Education studies art in process as well as product. Though not all Nigerian Universities have Art Education as a section or unit in their Fine and Applied Arts Departments yet, it is important to understand what Art Education represents. Art Education deals with the theories of art learning.

Art Education captures all the learning processes of Fine and Applied Arts. In doing so, a good range of theories and theorizations are involved. Art Education comprises the philosophy, evaluations, psychology, techniques, investigations, and curricula in visual art practice and learning. Art education explores all the theoretical backgrounds that precede and subsequently consolidate the studio art making processes. While art education may discuss art curricula, marketing and development issues it does not spectacularly cover the principles of teaching. Art education is not about the educational principles of making art teachers; rather it is about the principles of making art itself (Alu, 2021).

On Arts Education, it is a collective name for a Faculty of Education-based department where students borrow and combine ancillary courses from any of the departments in the Faculty of Arts. Hence Education is the mother-discipline. In some climes it's is called Education and Arts department. It is a similar situation that applies in Colleges of Education; whatever course you study in a College of Education is associated or combined with Education, and it reflects on your certificate. Buy this arrangement a student in the Arts Education department of a university, who borrows ancillary courses from the Department of Fine and

Applied Arts is a Fine and Applied Arts Education student. Also a student who requires ancillary courses from the Music Department to make up his requirement is a Music Education student in Arts Education Department. Alu (2021) Pinpointed: Note the 's' in 'Arts' Education department in the Faculty of Education, meaning that many disciplines in the Faculty of Arts are combined with Education as a basic course, for instance, English Education, Music Education, Fine Arts Education, Archaeology Education, etc. But in our own case it's specifically the theory of visual arts and its learning processes.

Suffice it to say that Art Education is a wing of the Fine and Applied or Industrial Arts that captures all the visual art learning theories and principles. In visual art learning can occur with or without a teacher unlike what obtains in general education where a teacher or instructor is always needed to impart knowledge to students. Art is sometimes self-evolutionary and same applies to its pedagogies, andragogy and research principles. The grooming and guidance processes for students in art education vary from those of general education. If you employ the teaching and instructional pedagogies of general education to the visual arts you will record a lot of discouragement and failure. So, the nature of a discipline determines the kind of education obtainable within. Not all the principles of: educational foundations, child education, adult education, community development education, curriculum studies, guidance and counselling education or educational measurement and evaluation are applicable to disciplines like; Fine and Applied Arts, Archaeology, Music, Theatre Arts, Mass Communication, History, English, Nigerian/Foreign Languages and linguistics. So, 'Education' as contained in the title Art Education should not be seen as making art learning and research amenable to the principles obtainable in the Faculty of Education or Colleges of Education. Art Education as a unit in the Department of Fine and Applied Arts is more concertedly known as Visual Art Education.

Arts-Based Research and the Profundity of Critical Thinking

Art which realises beauty arouses our admiration; it is full of solemnity and dignity, balanced and varied, profound, encouraging quest and inciting thinking, it is, of course, perfect in respect to mastery, originality, expressed ideas - in other words it is equipped with artistic values of a high order (Golaszewska, 1985). Critical consciousness is a process of recognising both our limitations and our possibilities. We need to collaborate with small and large, social, political, specialised groups of people already informed on and immersed in the issues of research at whatever level (Addison and Burgess, 2007).

In layperson's terms, critical thinking consists of seeing both sides of an issue, being open to new evidence that disconfirms your ideas, reasoning dispassionately, demanding that claims be backed by evidence, deducing and inferring conclusions from available facts, solving problems, and so forth (Willingham, 2007). To think critically means to think from both posterior and anterior

ends of a phenomenon. It also means to do investigation from very significant and durable parlances. When the problem is arts or humanities based there is no sense in mandating scientific metric structures for approval of methodology or verification of findings. Doing so would amount to demeaning the standards and independence of the arts as a disciplinary faculty.

Every research is geared towards problem solving and initiating something to the body of knowledge. Subjecting one disciplinary research to the dictates of another discipline would amount to injuring the subjected discipline and skinning it of its very essential definitions and philosophies (Alu and Akpen-Ade, 2019).

Critical thinking is the baseline for learning across all disciplines. Critical thinking does not tolerate surface validity of pedagogy and research methods only; room is also made for content validity. In content validity respect is reserved for the dictates of other disciplines, say, science for the arts, during academic discourses and interdisciplinary conferences. Without such due respects intellectualism will be full of subjective arrogance.

The more we scrutinize our data from diverse perspectives, the more we may divulge - or without a doubt construct - their complexity. We encourage the exploration of alternative strategies precisely in order to encourage the recognition and exploration of such complexity. We thus reject what might be called vulgar triangulation while endorsing a sensitive approach to complexity and variety in research (Coffey and Atkinson, 1996).

Quantitative Inculcations in Arts-Based Research

Art is fundamental to society, a network of useful, pleasurable, challenging and potentially transforming practices (Addison and Burgess, 2007). Knowing how to research is perhaps much more valuable than finding out a particular thing. Today's knowledge is tomorrow's joke. The earth is the centre of the universe and is flat! Atom is the smallest indivisible molecule! Research is about searching for alternatives. Being sceptical and critical are crucial research characteristics in progressing from one piece of knowledge to a better, more 'fit' version (Gray and Malins, 2004).

Hardy (2006) specified that theory and practice are combined in order to develop a sense of inquiry, an ability to take practical and intellectual risks, to be conscious of decision-making in a reflexive manner, to seek for and evaluate creative responses in self and others, to be able to articulate reasons for preference, qualitative judgements, or comparative aesthetic values, and engage with art and nature in the public world.

Perhaps the source of artistic values is the desire to make the world "one's own", fitting the most human, individual needs. Thus, art appears to include those factors that escape scientific knowledge: instincts, emotions, faith, myths, the secrets of human consciousness, etc (Golaszewska, 1985). Judging by this assertion, and indeed, its glaring reality, the aspect of the humanities that border on faith and emotions clearly shows a researchable domain about and within which science is alien. The tangible

creations of visual art, also, with its unpredictable terrains, unlimited methodologies and multifaceted findings is research on its own, whose trajectories are as problem solving as their climax per task.

There are times when research in the humanities may call for statistical data generation and elucidation, mostly if it is a cross-disciplinary research, say between art and sciences, then it may call for cross-disciplinary methods of data gathering and validation of findings. An art-based research may adopt scientific methods for data gathering but not discussion. Likewise a science-based research may adopt the use of illustrations, diagrams and dummies for data generation.

Statement of the Problem

There is a palpable impression, especially among scientists that research in the arts domain isn't credible enough if it does not have some scientific backup. Science-based research has a myriad of known methodologies for data gathering and verification, unlike the art-based research in which new methodologies evolve more often. Chief among research designs that propel statistical or mathematical methodologies in the quantitative domain are the: experimental, quasi-experimental, and descriptive survey designs. The historical research design broadly requires qualitative approaches. But cross-disciplinary research tendencies also make it possible that the: experimental, quasi-experimental and descriptive survey research types also obtain within the humanities. In the sciences historical or narrative approaches may be employed to expatiate findings and their processes. In effect quantitative research is possible in the arts within situations in which the humanities researcher may employ some scientific data gathering, statistical or tabulation methodologies. In this case a combo of methods is possible but not at the level where the artistic base of the study gets highly diminished or entirely lost.

Hybridisation in education is therefore in the rise because of the quest for solving problems overboard. New methods and measures are globally being sought while old ones are being reviewed (Alu et al., 2020).

As new research designs emerge due to cross-fertilisation of ideas by scholars, world over, the seeming supremacy ascribed to science-based or better put, quantitative research should be made a lot bendable. The situation is perhaps worsened by educationists in the humanities who have lost touch with the definitive realities of their disciplines. It is regrettable how most educational planners and lecturers in the visual arts, and even the entire humanities, especially at the tertiary level, seemingly relegate arts-based research to scientific certification by allowing their students to go so overboard. The noticeable relapse on arts-based quantitative research undertakings, even when art is the domicile discipline is absurd.

Research Thrust

This study is chiefly pivoted and projected around Arts-based quantitative research. While cross-disciplinary

research is prevalent in most modern educational parlances care should be taken not to reduce the mother-discipline to the principles of the affiliate. In this context the affiliate discipline is the discipline to which a researcher crosses, in order to obtain methods when hybridisation is called for. Quantitative research in the arts must not be subjected to extreme statistical calculations, formulae and verifications. Artists and art-researchers should take care not to 'scientificate' the art research to such an extent that it stands to lose its artistic bearings. However, both disciplinary perspectives must be respected for their uniqueness, none should be projected as bearing inferior methods and tools, rather, the principles of research in the mother-discipline should be upheld above that of the affiliate discipline.

One of the biggest challenges of cross-disciplinary research is use and limitations on methods. You should know when you are a borrower or mixer of methods. Do not borrow and mix so much that the proportion of the borrowed surpasses that of originality. While it is understandable that the Faculties of Education in Universities and Colleges of Education are Education-based, and their students should therefore, write projects and theses within the patterns of the faculty, post-graduate students of Art Education in the Departments of Fine and Applied Arts of Universities should be made to understand that whereas research in the Art Education section could be qualitative, quantitative or mixed, in quantitative cases, extreme statistical or mathematical formulae should be discouraged. Ordinarily art in itself is research, the methodologies of which are as numerous as the profiles of its expeditions.

METHODOLOGY

Research Design

This study is by inference the mixed method type. Succinctly put, the study combined the content analysis research technique, for data gathering, and frequency percentage rating for data distribution. Luo (2019) defined content analysis as a research method used to identify patterns in recorded communication. To conduct content analysis, you systematically collect data from a set of texts, which can be written, oral, or visual.

Stemler (2000) buttressed that content analysis provides an empirical basis for monitoring shifts in public opinion. Data collected from the mission statements project in the late 1990s can be objectively compared to data collected at some point in the future to determine if policy changes related to standards-based reform have manifested themselves in school mission statements. Weber (1990) submitted that, however, content analysis extends far beyond simple word counts. He further highlighted that what makes the technique particularly rich and meaningful is its reliance on coding and categorizing of the data. The basics of categorizing can be summed up in these quotes: "A category is a group of words with similar meaning or connotations"

While it is being debated in some quarters that content analysis is fit for qualitative research only, a deeper understanding of the technique readily shows its dynamic nature. Interestingly most scholars in the social sciences maintain that content analysis belongs to their domain whereas those in the humanities also claim the same. It is important to note that content analysis research should not be misconceived as fit for the humanities or social sciences only. The central fact is that content analysis is observation and communication based. Lately educationists have discovered the suitability of content analytical approaches beyond the qualitative attributions of the arts and social sciences. The raging contestation therefore necessitated the emergence of such terminologies as; qualitative content analysis and quantitative content analysis.

In pure and physical sciences the need for content analysis also crop up depending on research topic and nature. Content analysis is one of the research techniques that suit cross-disciplinary research. Quantitative content analysis uses coding and quantification of visual, oral or written contents. When you start ascribing numbers, measuring weights and numeric classifications to findings as basis for analysis, you are doing quantitative content analysis. Confirming the suitability of content analysis research method for cross-disciplinary studies Babbie (2001) stressed that the content analysis method may be used in qualitative, quantitative, or mixed-methods studies with a multitude of research objectives and questions. Authenticating this too, Luo (2019) opined that content analysis can be both quantitative (focused on counting and measuring) and qualitative (focused on interpreting and understanding).

Objectives of the Study

The study was aimed at finding out the reason most mixed method or cross-disciplinary researchers in visual arts seem to run with the orientation of methodological inferiority except the quantitative tendencies are allowed to outweigh the qualitative. With art education being the core section in Fine and Applied Arts where cross-disciplinary researches are mostly carried out, and in tracing the problem to its likely foundations, which is the school, the following were specifically sought, to:

1. find out by topics the frequency of coverage from the domiciliary department to adjacent faculties within the years under review
2. find out the trend of methodology scopes in the department of Fine and Applied Arts, University of Nigeria, Nsukka (2005-2019)
3. assess the frequency of balance and dominance between the qualitative and quantitative approaches.

Ethical Considerations

All the procedures involved in carrying out a research of this calibre in the department of Fine and Applied Arts, University of Nigeria were duly observed and permission granted.

Conflicts of Interest

There were no conflicts of interest between the researchers whatsoever. All the researchers participated in the study from ideation to conclusion.

Funding

There was no external sponsorship for this study. The entire financial involvements were undertaken by the researchers.

Study Instruments

The primary study instrument was the Art Education Postgraduate Theses and Dissertation Selection Graph (AEd-PTDSG) designed by the researchers for collecting and cataloguing initial data about the targeted theses and dissertations. The following were indices for picking the projects: (i) Study (full survey topic), (ii) access (locations for accessing the theses and dissertations), (iii) duration under review (2005-2019), (iv) phasing structure (5; 10; 20 theses), (v) phasing tripod (1st phase; 2005-2009, 2nd phase; 2010-2014, 3rd phase; 2015-2019), (vi) topic scopes (FAA department, Faculties of Arts and Education, Faculty of Education) and (vii) methodology (qualitative, quantitative, qualitative & quantitative- mixed). See appendix 1.

The secondary study instrument was the Arts-Based Research Techniques Supremacy Check Chart (ABRT-SCC) designed for recording specific data obtained from the AEd-PTDSG. The findings were based on the research tripod: Topic Scope, Methodology Scope and Cross-Disciplinary Methods. Under the Topic Scope checks, we had the: (i) department of Fine and Applied Arts in the faculty of Arts, (ii) Faculty of Education and Arts (mixed), and Faculty of Education as scopes covered. The Methodology Scope had: (i) Qualitative, (ii) Quantitative, and (iii) Qualitative & Quantitative- mixed. The Cross-Disciplinary Methods check had: (i) Qualitative+, (ii) Quantitative+ and (iii) Qualitative & quantitative balanced. The theses check calibres and subsumes were phased into 3 for comparative analysis of findings: (i) first phase; 2005-2009, (ii) second phase; 2010-2014, and (iii) third phase; 2015-2019. See appendix 2.

Validation of Instruments

The instruments were validated by experts in the Art Education section of the department of Fine and Applied Arts, University of Nigeria, Nsukka. It was pre-tested as a simple survey tool within the Art Education section, before being approved for the survey at the departmental level.

Procedure for Data Analysis

Simple percentage rating was used to distribute data on the instruments. Theses and dissertation topics that covered issues within the department of Fine and Applied Arts, Faculties of Arts and Education (mixed), then Faculty of

Table 1. Data distribution of the frequency of:

- i. Topical coverage from the domiciliary department to adjacent faculties
- ii. Trend of methodology scopes covered, and
- iii. Balance and dominance between the qualitative and quantitative approaches

Phase	Topic scope (FAA & adjacent Facs)			Methodology scope (Distribution of types)			CD Methods (Dominance review)		
	Dept of FAA	Fac. of Ed. & Arts (mixed)	Fac. of Ed.	Ql	Qt	Ql & Qt (CD)	Ql+	Qt+	Ql & Qt (balance d)
2005-2009 (5 theses)	- (-)	1 (20%)	4 (80%)	-	3 (60%)	2 (40%)	- (-)	3 (60%)	2 (40%)
2010-2014 (10 theses)	4 (40%)	4 (40%)	2 (20%)	2 (20%)	2 (20%)	6 (60%)	2 (20%)	3 (30%)	5 (50%)
2015-2019 (20 theses)	12 (60%)	8 (40%)	- (-)	4 (20%)	- (-)	16 (80%)	2 (10%)	6 (30%)	12 (60%)

Key:

Ql; Qualitative, Qt; Quantitative, Ql+; More qualitative, Qt+; More quantitative, Dept; Department, Fac; Faculty, Ed; Education, FAA; Fine and Applied Arts, CD; Cross Disciplinary.

Source: Nkem Fortyunes Alu et al (Research, 2022)

Education were recorded across the three phases. On methodology, theses that were qualitative, quantitative or of mixed methods were also recorded across the three phases. Then, furthermore, the dominance of qualitative, quantitative or a balance of the two techniques were recorded numerically. Beyond mere numeric data on the above indices there were percentage conversions of data representing the 35 theses and dissertations. The simplicity of the alpha-numeric data spread was to exemplify what this study is proposing; limited calculations and scientific tendencies in art-based quantitative research.

RESULTS

Data elicited from the investigation was chiefly aimed at projecting the position of the department on the current proliferation among some artistically uninformed educationists and researchers. See Table 1.

Data on Table 1 shows that in the first phase (2005 and 2009) there were 5 theses found in the category desired. On the topics, in the first phase, only 1 (20%) reflected issues in the Faculty of Arts and Education combined and 4 (80%) fully reflected the faculty of Education. In the second phase (2010-2014) 10 theses were selected and studied. Findings showed significant adjustments in that 4 out of the 10 theses (40%) had topics presenting the department of Fine and Applied Arts, another 4 (40%) represented a combination of Faculty or Arts and Education, but only 2 (20%) represented the Faculty of Education. This shows an obvious domiciliary reawakening in the use of techniques. In the third phase (2015-2019) the department fared even better, with 12 theses topics covering contents and issues in the department, amounting to 60% of 20 theses, 8 (40%) cutting across Faculties of Education and Arts and non in the Faculty of Education solely.

In the first phase (2005-2009), on trend of methodology

scopes covered none was qualitatively conducted, 3 (60%) were quantitative while 2 (40%) had combinations of the qualitative and quantitative techniques. In the second phase (2010-2014) 2 theses apiece (20% of 10 theses) represented qualitative and quantitative methodologies and 6 (60%) represented a combination of both. In the third phase (2015-2019) out of 20 theses only 4 (20%) showed arts-based methodologies whereas 16 (80%) did a combination of the qualitative and quantitative methodologies.

On balance and dominance between the qualitative and quantitative methods in the first phase (2005-2009), 3 (60%) of the 5 theses were absolutely quantitative, only 2 (40%) had a balance of the two. In the second phase (2010-2014) out of 10 theses and dissertations 2 (20%) were qualitative, 3 (30%) were quantitative, and 5 (50%) had a balance of the two. In the third phase (2005-2019) out of 20 theses 2 (10%) were qualitatively done, 6 (30%) were quantitative and 12 (60%) balanced both methodologies.

DISCUSSION

Topics researched in the three phases showed that whereas there was the error of drifting away from disciplinary methodical originality in the first phase (2005-2009) corrections started showing from the second phase (2010-2014), and then in the last phase (2015-2019) the topics returned home a lot more, sustaining mixed methods between the Faculty of Arts and that of Education averagely. In the last phase there were no more total relocations to the Faculty of Education. There was an outstanding show of domiciliary disciplinary consciousness on the side of the postgraduate academics unit of the department.

On trend of methodology scopes covered it was clear that the second phase (2010-2014) marked the turnaround,

spotting some domiciliary methodologies, unlike the first phase (2005-2009), though in the second phase, the drift was not without a greater percentage still representing mixed method research. But in the last phase (2015-2019) the massive stay-back on mixed methods research showed that Art Education theses and dissertations in the department have for a long time been circumventing combinations of the qualitative and quantitative methodologies.

The findings showed that in the first phase (2005-2009) quantitative research overwhelmed the system, in the second phase (2010-2014) there a homeward drift to qualitative research, a bit of the qualitative and a noticeable appreciation of balance between the two. In the last phase (2015-2019) there was significant improvement, though the quantitative still surpassed the qualitative, a greater number still balanced the combination.

The implication is that postgraduate students of Art Education have imbibed the consciousness of domiciliary methods and verification supremacy, as revived by the authorities of the department.

Recommendations

The recommendations of the study are encapsulated thus:

1. More needs to be done at all levels to discourage the overlapping extremities of other disciplines where art is the baseline of cross-disciplinary or mixed method research.

2. The control of scope and techniques should naturally start from the research topics being approved in the institutions. This way, due reflections would be made on the backgrounds and methodologies.

3. Where cross-disciplinary methods become inevitable, as in the case of arts-based scientific-incursion-fused researches, simple percentage ratings, as exemplified in this study could be used. Other simple data verification approaches include the YES and NO frequency tables, the Likert scale response tables, and other simple alpha-numeric ratings.

4. Emergent data gathering and distribution tables may be designed by the researchers, pilot-tested and approved by experts in the field.

5. The profiles of artistic discoveries or applications found useful in a research could form the basis for the design of its rating or scoring tables. For example, a research on sculpture could employ the additive and subtractive approaches in three-dimensional design as baselines for content creation in the research instruments.

6. On themes or issues that reflect beyond studies in any department in the arts, or beyond the entire faculty of the humanities, care should be taken to define and express what the theme represents in the immediate domiciliary discipline, not generally. By so doing, suitable domiciliary methodologies could be used. For instance, the term 'rhythm' does not mean in Fine Arts, exactly what it means in Music or English Departments. Also, 'studio' in Fine Arts does not represent exactly what it represents in Mass Communication. On a broader sense, 'theatre' for the

purposes of activity, does not mean, in the Medical Sciences Faculty what it means in Theatre Arts and other departments in the Faculty of Arts.

7. In respecting the disciplinary baseline of a study during cross-disciplinary studies mixed methods research will gain more global acclaims.

8. Journal articles, disciplinary, exhibition and exploration reports publishers should take care not to send papers to experts in other or approximate disciplines, to avoid unnecessary faulting of used suitable methodologies. For example, if an expert in Home Economics is given a research paper from Fine and Applied Arts to per-review, even if the paper is not cross-disciplinary in nature, there is every tendency that the peer reviewer may not understand all the terminologies and methods used by the Fine Artist, irrespective of the fact that both disciplines are generally considered similar in nature.

9. Schools and educational proprietors are supposed to employ teachers and lecturers who are experts in relative fields. A graduate in French should not be employed to teach English because both belong to the languages. A graduate of Vocational Education should not be employed to teach Fine and Applied Arts because both disciplines interrelate. Approximation or similitude does not translate to exactitude. Employment of experts based on similitude of disciplines can misplace and kill originality of disciplinary educational methodologies and research.

Conclusion

In conclusion whereas the current study was not aimed as demeaning the nature of research methodology and pedagogies in the disciplines outside of the humanities, principally the sciences, concerted effort was made to let go the mindset that except scientific data gathering and verification methodologies are employed, research in the arts is not research enough. Critical thinking does not preclude artistic methodologies in research and even social interventions. As inevitable as cross-disciplinary studies have become in the modern world of educational hybridisation researchers in divers disciplines should be mindful of their domiciliary attributes, and in keeping them, the distinct features of each discipline would be preserved, especially regarding pedagogy, andragogy and research methods.

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Appendix 1: Art Education Postgraduate Theses and Dissertation Selection Graph (AEd-PTDSG)

Study topic:	Supremacy of Arts-Based Research Techniques and Critical Thinking in A Mixed Method Milieu: A Survey of Art Education Postgraduate Degree Theses and Dissertations for Quantitative Inculcations in the Department of Fine and Applied Arts, University of Nigeria, Nsukka (2005-2019)		
Access:	The Department of Fine and Applied Arts library and secretariat.		
Duration under review	Art Education postgraduate theses and dissertations of students that graduated between 2005-2019 (15 years)		
Phasing structure:	It's a 3-phase structure, starting from 5 dissertations and theses in the first phase, each next phase is double the previous number		
Phasing tripod:	1st phase: 2005-2009	2nd phase: 2010-2014	3rd phase: 2015-2019
Topics:	Scope within FAA department	Scope within the Faculties of Arts and Education (mixed)	Scope within the Faculty of Education
Methodology:	Qualitative	Quantitative	Qualitative and Quantitative (mixed)
<i>Source: Nkem Fortyunes Alu et al (Research, 2022)</i>			

Appendix 2. Arts-Based Research Techniques Supremacy Check Chart (ABRT-SCC)

Phase		Topic scope (FAA & adjacent Facs)			Methodology scope (Distribution of types)			CD Methods (Dominance review)		
		Dept of FAA	Fac. of Ed. & Arts (mixed)	Fac. of Ed.	Ql	Qt	Ql & Qt (CD)	Ql+	Qt+	Ql & Qt (balanced)
..... 1 st phase No of theses	freq									
	(%)									
..... 2 nd phase [..... No of theses	freq									
	(%)									
..... 3 rd phase No of theses	freq									
	(%)									
<p>Key: Ql; Qualitative, Qt; Quantitative, Ql+; More qualitative, Qt+; More quantitative, Dept.; Department, Fac; Faculty, Ed; Education, FAA; Fine and Applied Arts, CD; Cross Disciplinary.</p> <p>Source: Nkem Fortyunes Alu et al (Research, 2022)</p>										