

# Appreciation of Finish Specification in Room Space Condition Modification among Graduates of Architecture in Nigeria

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**Abstract:-** Interior finishes are specified based on function of room space, to make rational specification, physical and special qualities of finishes must be known. The study is guided by the drive to find out how graduates of Architectural Technology and Architectural science, respond to characteristics of interior finishes that includes sheets, boards, panels and paints. Statements on physical properties of finishes enquired on temperature, acoustics, illumination and moisture/humidity, while wealth, aesthetics, mosquito, fire and algae/moulds were presented for special properties. These were administered to the graduates. The results show that between 62.4% and 81.7% agreed that finishes can modify the physical design factors stated, 18.3% to 30.6% responded in the negative. On the other hand, responses on special factors recorded 48.4% and 80.6% in the affirmative while between 19.4% and 51.6% gave negative responses. The scores in the results show that generally, the graduates seem to appreciate the physical than the special characteristics of finishes, in summary, the ideal scores would have been 100% positive for all statements, as the physical and special design factors mentioned in the questionnaire can all be modified, controlled or affected with the appropriate internal finish. Some of the positive responses are lower than expected, in the case of fire safety and control of mosquitoes which had the lowest scores for instance, show these attributes of finishes may not have been appreciated. Based on the findings and purpose of giving due attention to finish specification, as functional requirements of room spaces demand, it was recommended that more moves be made to link developments in the building industry, emerging building materials in the market with the curriculum of Architectural training, a case in point is to introduce methods of checklists as in the Construction Specification CSI (2016) Masterformat, or specification software such as the National building specification (NBS) in programs.

**Keywords:-** Finish Specification, Room Space, Condition, Modification.

## I. INTRODUCTION

Trends in Architectural Education have been in discourse along matters of quality and competence of graduates of Architectural Institutions. Some Architectural educators ask if the training in Nigeria is in synergy with ongoing in the building industry, others want new materials in the market and Techniques of fabrication integrated into the training program. There seem to be need for alignment of training to current activities in the building sector. To design a building, according to Uji (2002), size, finishes, materials and construction technology all make statement on the image of a building, this emphasises that trainees in Architectural studies need to learn these domains of knowledge.

Issues being discussed at present on methods and curriculum of training programs, highlights that, Architectural studies is lumped up and products of training institutions are either at par, with what is expected of them or lacking in active aspects of skills and knowledge. This view was clearly expressed by Uji in Nghai (2013) where Architectural training was described as being stagnated in growth, limited in expansion, and stymied in development, the situation portrayed led to calls for conversion of departments of Architecture into faculties, schools or colleges with departments under them, the thinking is that if implemented, is capable of ensuring in-depth study of all aspects of Architectural knowledge and promotion of specialisation. According to Merriam – Webster (2022) Specification can be defined as a single item of such statement making the item unique. Specification describes types, performance, transportation, storage and method of construction of a material as well.

A typical rectangular room consist of four vertical planes, that is the walls, and two horizontal planes, one above, the other below known as ceiling and floor respectively. Six planes in all, each surface should be finished to comply with activities that will take place in the room.

The study has the purpose of assessing how holders of the Higher National Diploma, Bachelor of Technology and Bachelor of Science in Architectural training respond to specification, touching on physical and special performances of finishes to building interiors. Keeping in mind as opined by Musa (2016), that functions of spaces should dictate materials and type of finishing. The graduate have passed through Architectural courses after entry with subjects such

as physics, mathematics, technical drawing or building construction at ordinary level and are expected to score high on the statements administered.

To summarise, the graduates of Architectural training to degree and higher diploma level are expected to respond to statements presented, which are true and the right answers for all statements are in the affirmative, the graduates are trained to be sensitive about them. Occupancies will dictate requirements of spaces on which type of finish should be specified, to avoid what Ogunsoye(2015) described as sub-optimisation of finish choice or simply incorrect specification.

#### ➤ Aim

Alignment of Architectural training to available possibilities in the building industry drum for training on systems that will familiarise trainees with methods and materials, in use within the building industry and towards a more efficient Architectural service delivery.

#### ➤ Objectives

These are the objectives of the study;

- To seek the opinion of 93 graduates of Architecture, if interior finishes could be used for modification of physical and special variables in room spaces.
- Enquire from respondents if characteristics stated could affect interiors of buildings.
- Evaluate responses on 9 items stated in the questionnaire.

- Determine level of appreciation, if stated finish property could control or affect room interior condition on the 9 enquiries in the statements.

## II. METHODOLOGY

The population of the study comprise of 19 higher National diploma holders from public or private establishments and those who are self – employed. 39 who had degrees in technology and 35 with theirs in science are students of first or second year in the Masters class of 2020/2021 session. 93 out of the correctly filled questionnaire were retrieved and used for the study. The numbers used are derived from methods explained in the modified Cochran (1977) on proportionate allocation.

Opinion was sought on 4 physical and 5 special performances of finishes, as the statements touched on if conditioning or adaptation of room space was possible with the appropriate finish. Questionnaires used for the purpose carry statements with space for response if 'agree' or disagree.

Since all respondents are graduates with Higher National Diploma or Degrees, the respondents are expected to score high, an ideal score of (100% in the affirmative) for 93 respondents; answering 9 questions each means 837 responses, 372 on physical performances and 465 from special performances.

S/N	OCCUPANCY EXAMPLES	DESIGN CONSIDERATION	REQUIRED PERFORMANCE OF FINISH
1.	Lounges, Living rooms, bedrooms, storages.	TEMPERATURE	. Bright coloured paints . Specific heat capacity . Poor absorber of heat
2.	Recording studios, Meeting rooms/offices.	ACOUSTIC/SOUND	. Soft surfaces/absorption . Hard surfaces/reflection
3.	Operating theatre, Watch assembly, Needle work.	ILLUMINATION	. Light coloured paints to reflect light.
4.	Toilet, Bath.	MOISTURE/HUMIDITY	. Water resistance, . Impermeable tiles.

Table 1:- Physical Requirement of Occupancies  
Source: Author

S/N	OCCUPANCY EXAMPLES	DESIGN CONSIDERATION	REQUIRED PERFORMANCE OF FINISH
5.	Corporate offices, lounges Living rooms.	EXOTIC/EXPENSIVE	. Highly expensive.
6.	Lounge, offices, living Rooms, museums.	AESTHETIC	. Visually attractive, . Impressive.
7.	Bedrooms, living rooms, Lounges, offices.	MOSQUITO/INSECTS	. Mosquito repellent, paints.
8.	Kitchen, factories, fuel/gas. Handling high fire risk	FIRE SAFETY	. Fire retardant, intumescent coating, Epoxy, Acrylic...
9.	Toilet, bath, laundries.	ALGAE/MOULDS	. Algae/moulds resistant paints.

Table 2:- Above shows special requirements of occupancies  
Source: Author

The structured questionnaire form enquired on the ability of finishes to create, modify or adapt interiors of buildings, towards required conditions or dispositions, the statements are to be responded to by ticking 'agree' or 'disagree'.

### III. RESULTS

The questionnaire forms were retrieved, sorted and counted 93 correctly filled forms provided the data in table 3 and 4. Nine statements were answered by each respondent. That is a total of 837 responses. The physical conditions that can be modified in a room space covered are temperature, level of illumination, acoustics and moisture, they had various scores, as shown in table 3 below.

S/N	STATEMENT	FREQUENCY		PERCENTAGES(%)	
		POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
1.	Finish choice can control Temperature	65	28	69.9	30.1
2.	Finish choice can control Illumination	72	21	77.4	22.6
3.	Finish choice can control sound/Acoustic	76	17	81.7	18.3
4.	Finish choice can control Moisture/ Humidity.	58	35	62.4	36.6

Table 3:- Statements on control of physical conditions in room space with finish.  
Source: Author

The 4 statements responded to by 93 respondents gave 372 responses, 271 responses were positive while 101 responded in the negative.

On the other hand, the special characteristics of interior finishes for room space modification, such as ostentation, Aesthetics, fire safety, mosquito and moulds/algae had a total of 465 statements responded to, table 4 below shows the detailed distribution of scores.

S/N	STATEMENT	FREQUENCY		PERCENTAGES(%)	
		POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
5.	Finish can be used to display wealth.	63	30	67.7	32.3
6.	Finish can be used for high Aesthetics.	75	18	80.6	19.4
7.	Control of mosquitoes.	52	41	55.9	44.1
8.	Enhance fire safety.	58	35	62.4	36.6
9.	Control of moulds and Algae.	68	25	73.1	26.9

Table 4:- Statements on control of special conditions with finishes

Source: Author

The results of the 5 statements responded to showed that 303 responded positively while 162 are in the negative.

#### IV. FINDINGS

The graduates of Architectural studies,(degrees and diploma) are expected to score high in all the aspects of finish specification, 9 statements presented and the responses expose how the respondents appreciate interior condition control with finishes. Generally 837 responses reported, 574 were in the affirmative, the remaining 263 responded negatively.

Table 3 shows that acoustics with 81.7% was most accepted as being manipulated with finishes. Illumination had 77.4%, temperature 69.9% and moisture/humidity scored 62.4%. It can be seen that 81.7% and 77.4% show that respondents highly agree that interior space condition can be controlled, in case of temperature 69.9% and moisture/humidity 62.4% though respondents agree it is to a lower extent.

Table 4 shows Aesthetics 80.6% and algae/moulds control 73.1% had higher score meaning respondents appreciate the most that these finishes could be used to modify the space variables. Next is ostentation 67.7% and mosquito control 55.9%, this level of response score shows that though accepted, it was not quite unanimous, fire control 48.4% is below 50% and shows this attribute of finishes, is not much appreciated among the respondents, as those who disagree amount to 51.6% of the total population.

#### V. CONCLUSION

The disposition of Architectural Education at the moment portrays the graduate as jack of all trade, master of all, but another school of thought thinks 'jack of all trade master of none' is more accurate description. Architectural training is broad and the student is expected to master drafting, exterior and interior design, landscaping, Architectural craftsmanship, environment and energy, Architectural engineering, Architectural physics, sustainability, cost surveying/estimation, construction and specification among others, the task is enormous, questions

are being asked, if this set up is good for in-depth study, comprehension and specialisation.

This study is designed to assess appreciation and how sensitive the described graduates of programs in Architecture are, to one section of a division in finish specification for a building project, that is, specification of finishes for interiors of buildings for purposes of creating desirable conditions, preferences, effects or in response to certain design parameters.

The results and findings show that out of the 9 characteristics latent in finishes presented in the study, 8 were scored above 50% by the respondents. Score of up to 81.7% were recorded for acoustic conditioning of space using finishes. This shows that though most of the graduates responded in the affirmative on the statements, it seems there is space for improvement on this body of knowledge. The graduates are expected to score higher than what was recorded in the study.

Architectural training as suggested by Nghai (2013) and Uji (2002) should be fragmented, Architecture departments as they are, be given faculty, school or college status, with departments under them, dedicated to aspects of Architectural knowledge/skills. This recommendation if considered can affect depth of study, understanding, specialisation and quality of Architectural service delivery.

This study is therefore a feedback on a section of a division on specification that is finishes of interior spaces and the factors as it affects design.

#### RECOMMENDATIONS

Architectural Education is established and controlled by the Nigeria University Commission (NUC) it is responsible for quality of degrees awarded by universities. The National Board for Technical Education (NBTE) regulates the Higher National Diploma awarded by polytechnics. These organisations accredit the Architecture programs in the training institutions; they also shoulder the responsibility for curriculum and quality control of graduates. The association of Architectural Educators in Nigeria (AARCHES), the

umbrella body of teachers and trainers in Architecture schools, handles the delivery of training, often with an industrial attachment or industrial training before graduation.

Regulatory bodies on Architectural training and practice as the Architects registration council of Nigeria (ARCON) and the Nigerian Institute of Architects (NIA) have to continue monitoring the training schemes at the training institutions for regular fine tuning.

Lecturers at training institutions apart from being members of AARCHES, should also be members of the institute (NIA) and the council (ARCON). In all the following recommendations are made.

- The curriculum needs regular review with every aspects being considered and feedbacks such as this study conducted with aim of updating and reframing training.
- The concept of division of labour and specialisation be given a chance, by fragmenting Architectural Education specialisations will produce specialists in the different aspects of Architecture, instead the lump type broad training practiced.
- The NUC, NBTE and AARCHES should have one voice and opinion on matters of training, all efforts are towards one goal, that is the production of wholesome graduates and a more competent Architectural service delivery.
- The ARCON continuous professional development (CPD) should pass its ideals down into training, to create synergy.
- Training in all aspects should be practical to improve the skill and vision of the learner, and not alternative to practical, as is becoming popular in training institutions.

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