Towards a Functional Evaluation of Pro-Social Studies Instructional Material for Inclusive and Productive Learning

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Abstract

his paper attempts to provide a paradigm towards a functional evaluation of Pro-social studies instructional material for inclusive and productive learning in Nigeria. It considers a viable and inclusive framework, and attempts to provide a model that may be relied upon to evaluate an instructional material produced for teaching and learning of Social Studies as a subject in Nigerian schools. The paper essentially focuses on graphic visual materials which dominate the instructional arena today, but with very poor outcomes. The three segments of this paper includes: evaluation of Instructional contents objectivity, evaluation of environmental compliance level and evaluation of utilization efficiency (competence) level of the teacher. These form a model Contents, Environment and Utilization (CUE) model of Functional Evaluation of Instructional Material. Recommendations offered include: Social studies Instructional material should among other things consider efficient conceptualization, structure, nature, socio cultural order and utilization to make it a high credibility source of instruction.

Keywords: Social Studies, Instructional Material, Functional Evaluation, Inclusive and Productive learning

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Background to the Study

The desire to produce solvent learners and functional citizenry is the hallmark of productive learning. According to Bassey, (2012), there is a paradigm shift from reproductive to productive learning. Thus, productive learning is anchored on contemplating and activating integrated and sustainable solutions to the unending problems confronting our society, living, and livelihood, each time they surface. Myriads of problems of modernization, civilization and social change have posed very lasting and mind burgling challenges on humanity, which require immensely thoughtful and sustainable solutions. Humanity therefore becomes a battle, then a relationship based on philosophical grounds; thus, productive learning produces productive (fearless and solution driven Consumer-producers) citizenry for Nigeria.

However, the fact that every human being within the known operational environments experience very unique, often times, common problems and challenges are enough justifications of the need for inclusive learning. The desire for, and product of strategically fending for (and ensuring to protect) the uniqueness and complexity of the various characteristics of learners—gender, learning abilities, socio economic order, physical abilities/disabilities, psychological situations, religious affiliations, among other social security questions help to balance opportunities for both academic performances and achievements. These very important tasks in the global education space was emphasized in Education for All (EFA) goals, New World Order (), Millennium Development Goals (MDGs), and today, the fourth of the seventeen Sustainable Development Goals (SDGs) viz: Ensure inclusive and equitable quality education and promote life-long learning opportunities for all. Productive and Inclusive learning is a function of active, collaborative, integrative, creative, and evaluative learning which can be guaranteed by competent sources of instruction—the teacher and the instructional material.

Social Studies being an eclectic discipline, which is concerned with investigation into the mutuality level of interaction between man and, (within) his environment for reflective, contemplative, integrative and sustainable solutions require proactive learning materials and supportive environment which are anchored on androgogical approaches. Androgogical approach is simply based on holistic and reality of experience (Kazi, 2012). This is because Social Studies is designed to supply Continued cultural heritage, Good and Consumer-productive citizenry, Balanced intellectual development, Need for humane and just society, and learners' social needs (Esu &Inyang, 2004); therefore, it is tasked for both productive and inclusive learning in the final analysis.

It is no doubt, that Instructional material is a source of teaching and learning, like the teacher, but it is expedient that such be imbued with emotions and affections capable of affecting the learners psychic for achievement of the objectives above, even without the physical presence of the teacher. In this wise, Social studies instructional material may be more or less "a source of teaching and learning (or co-teacher), available and relevant for instruction, with message content conveying learning experiences of balanced domains and values, which in turn determines the structure of the curriculum as a socio cultural resource of high level credibility".

Elements of the definition above includes the following: Instructional material is a source of teaching and learning; it should be available and relevant to the topic, characteristics of the target learners, and for the instruction (including the environment); message contents conveyed should guarantee learning experiences of balanced domains (cognitive, affective and psychomotor) and values in terms of cultural and social order, as well as the environmental requirements/ learners' needs; as a socio cultural material, it should poses high credibility characteristics (including Objectivity, Trustworthiness, Dynamism, and Competence/Professionalism) to be able to determine the structure of the curriculum.

Contents objectivity, Environmental compliance and Utilization efficiency (CUE) Model of instructional material evaluation promises and guarantees credibility of social studies instructional material, which in turn guarantees productive and inclusive learning amongst learners.

In affecting the curriculum for a more reflective, contemplative and inclusive learning, the instructional material must provide a reality of experiences through an interactive driven material that is content—thought provoking; that can make for incidental learning, and subject the teacher to a facilitator of knowledge. After all, the education that a teacher has is like honeycomb put in a bowl for everyone to taste (Obukeni, 2018), each learner takes where he/she delights, in the quantity and time available.

Much has been achieved in the areas of modalities for selection and utilization of instructional (visual) materials, but not in evaluation modalities, especially, on their functional relevancies instead of relying on the instructional objectives (which are often mechanistic and cognitive) and the targets(which often times are not considered in terms of cultural backgrounds, social and psychological attainments, but limited to age, class size and ability levels); thus counterproductive in today's dot com., dot this and that world of knowledge without appropriate skills, morals and values. These smack off the need for propelling evaluative forces like those of Teacher Self Evaluation Tool) and learners achievement evaluation instruments that would make social studies instructional material where ever it is produced, to be potent enough for achieving its objectives, and sustain the uniqueness of the innovative discipline.

Evaluation of Contents in Visual Materials for Social Studies

Contents refers to the learning experiences or message, in form of textual information, images and other symbols (including aesthetics) built and imbued into them for the purpose of learning. According to Prince (2008) such contents should be current, accurate, support National Objectives, define reasonable scope, and make the level of difficulties appropriate to the learners' characteristics.

Social studies emphasizes the importance of man, man is put in the central position in his environment (Balyejusa, 1981 in Niyi 2005) the content of a high credibility instructional materials for social studies recognizes man and environment as numerator and denominator aiming to understand human interaction within his environment. Studying man/environment interaction makes social studies an integrated discipline, while its contents are designed with integrated approach to offer reality of experiences.

In fact, Okam (1998) asserts that "a child sees the world as one unit; and naturally ask questions which cut across artificial subject division." An integrated approach to learning attempts to follow the child's natural way of learning, and view the world as a whole, the teachers' role (including the instructional material as a co-teacher) being to provide experiences and assist the enquiry process, by suggesting further lines which might be followed. Accordingly, every instructional material content has priority areas for evaluation, these may include:

- (a) Accuracy Objectivity, representativeness, correctness, context
- (b) Authenticity Multicultural fairness, multicultural advocacy
- (c) Humanity and compassion Inclusion of compassion, exclusion of humanity
- (d) Completeness
- (e) Scope

Content in instructional material may be evaluated using some or all of the following in table 1 Content Efficiency Checklist. The checklist subsumes about four (4) content areas including: conceptualization, image, colour utilization and characterization.

Table 1.

S/N	ITEMS	INDICES (if any)	1	2	3	4	5	
	CONCEPT	TUAL/LAYOUT CHECKLIST						
	Relevant by	• Suitability to the learners' characteristics						
1.	conceptualization							
		• Relationship with the topic at hand						
		• Correctness						
		• Scope						
		Grammar/language use						
		• Clarity						
		Logical sequence						
		• Size						
		• Shape						
		• Balance						
		Matching with behav ioural objectives						
2.	Relevance by structure	Presence of human						
		• Interactive depiction (action with utilities)						
3.	Relevance by nature	Natural colours						
		Age differentials						
		Bodily size						
		Psychological components						
4.	Social and cultural	Gender balance						
	relevance	Religious sensitivity						
		• Ethnic/racial						
		• Identity					1	

	IMAGE RATING CHECKLIST				
	Spatial image	Appropriate environment			
1.		• Presence of utilities			
2.	Temporal image	Matching action with time			
		Availability of shadow or clock			
		Brightness and darkness appropriateness			
3.	Personal image	Facial difference			
		Bodily shape and size content			
		Height difference			
		Complexion			
		• Gender			
		Ability/disability difference			
		Role appropriateness			
		Organizational appropriateness			
4.	Operational image	• Racials			
		Aboriginals			
		• Parental			
5.	Value image	Appropriate haircut			
		Appropriate clothing			
		• Facial effect			
		Appropriate body structure			
		Appropriate bodily defect (eye, ear, hand,			
		leg, etc.)			
		Adornments (beets, shoes, wrist watch			
		etc.)			
6.	Emotional image				
	(i) Appropriate mood				
	(ii) Appropriate				
	activity				
	(iii) Appropriate				
	posture				
	posture				
	Social and cultural				
	relevance				
7.	Affective image		1		
	appropriate				
	job/work				
	environment				
	appropriate				
	colour choice				

	COLO	UR UTILIZATION CHECKLIST		
1.	Background	Natural		
		Projective		
2.	Images/utilities	Natural		
		• Emphatic		
		Meaningful		
3.	Labels	Brightness		
		• Readable		
		• Sharpness		
4.	Borders	Appropriate demarcation		
		• Moderate		
5.	Special effect	Attractiveness		
		 Appropriateness 		
	CHA	RACTERIZATION CHECKLIST		
1.	Concepts	• Man		
		• Interaction		
		• Environment		
2.	Typeface/style	• Title		
		• Items		
		• Definitions		
		Numbering		
		 Appropriateness 		
		• etc.		
3.	Effect	• Spacing		
		Alignment		
		 Special effect (shadings colour, background) 		

Conceptual checklist answers nearly all the questions surrounding relevance

Relevance by conceptualization is a generalized view of instructional material. It does not have discipline bias, as every instructional material where ever it is designed must be imbued with this level of relevance. Specific contents include: Suit ability to learners' characteristics relationship with the topic at hand, correctness, scope, grammar/language fluency, charity, logical sequence, size, shape, balance, and matching the instructional objectives.

Relevance by structure is the footstool of social studies technicality. It is from the concept of "interaction" being the central theme/Agenda of social studies. Other social science disciplines study human behaviour (intrinsic or extrinsic) relationships and interaction here means influencing and being influenced by the environment (Nuhu 2005). Basic of relevant by structure includes suitable to perspective (operational) environment.

Relevance by nature is a property of appropriate colour utilization to show exact nature, age differentials bodily size, and other psychological components that can persuade learners' reflective skills.

Social and cultural relevance is far-reaching. Prince (2008) prescribes "social considerations involving gender sensitivity and sex orientation, equality of students multicultural background, support for learners' self-esteem and those of others; safety practices, use of appropriate language. Features to check includes: Gender balance, Religious sensitivity, ethnic/racial identity, and safety practices. They constitute evaluation points. The last level of Akpanudi, (2016) instructional material relevance is discussed under utilization.

Image checklist is artistic in nature. A teacher is both an artist and a scientist. Image checklist (technicality) quest for the compulsory presence of human beings (man) and (in his operational) environment in social studies graphic visuals. It was developed from Burdillon (1948) in Ebong & Bassey (1995) components of image. These images constitute visual contents which include:

Spatial image which denotes the picture of individual location in the space around him. Evaluation properties which include: appropriate operational environment and presence of utilities.

Temporal image involves picture of the stream of time and His (the human depicted) place in it. Evaluative content includes: Matching action with time (age, time of the day etc.), availability of shadow or clock to tell time. Movement of the shadow is very important in telling time and appropriating same with action (event) of the culture depicted: e.g. peer group play at evenings, shadow turns sideward right, etc; brightness or darkness shows the difference between times, morning, afternoon, evening, night or closet and openings etc.

Personal image refers to the total identity of a person (biological-social being). It means the picture of the individual (that human depicted) in the midst of people, roles, and organizations. Evaluation variables include: facial difference, bodily shape/size content, height difference, complexion, gender, ability/disability difference, role appropriateness and organizational appropriateness.

Value image consist of ordering in the scale of better or worse parts of the whole image: evaluation indicators include: Haircut, clothing, facial effects, bodily structure, bodily defect (eye, ear, hand or leg impairment) adornments (beets, shoes, wrist watch or other official or ceremonial enhancements).

Relational image is picture of the universe as a system of regularities. It answers the questions of what race, and other biological differentials.

Emotional image entails the image aspect in which the various parts are imbued with feelings. Evaluation indicators are: weeping, wailing, happiness laughter, peer, anxiety, sickness, and mourning/sadness.

Affective image is that which the various parts are imbued with affections: Wealthy, criminal, success, star, etc. the last two are psychological.

Colour utilization checklist attempts to justify the colour-laden nature of social studies instructional material. Evaluation indicators are obvious: They are: Background-natural, projective images/utilities-natural, emphatic meaningful Labels-brightness, readable, sharpness Border-appropriate demarcation, moderate Special effects-attractiveness, appropriateness.

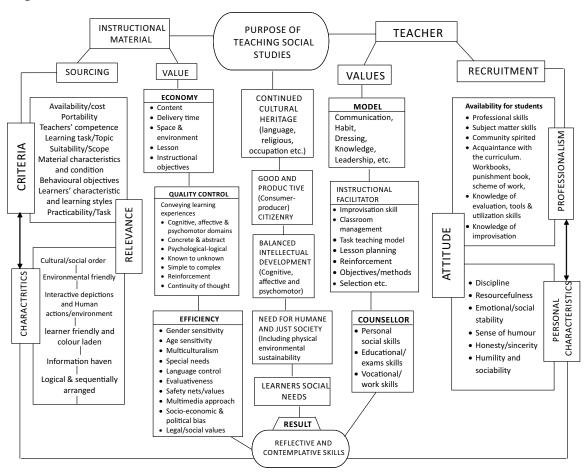
Characterization checklist is an evaluation device that checks the effectiveness or not of labels: indicators are: concepts: man, interaction, environment (to describe events) Type face/style: Title, items, definitions, numbering cases and uniformity, appropriateness and boldness.

Content is the main thrust of an instructional material, but its credibility can not be rated as high if other segments of environmental compliance and utilization are not well considered. Akpanudi & Usara (2017) agree that "the media is the message". The media is hence the totality of quality, quantity, situation and ethical variables.

Evaluation of Social Studies Instructional Visuals Utilization

Although the teacher is the chief utilize of the instructional material as a teaching resource, the learners also utilize same as a learning resource; but the instructional material itself manages and regulates the methods by which it is utilized in the classroom, by influencing time, interaction activities among the learners (learner-learner), teacher and learners (teacherlearner) and teacher and learner (teacher-learner). This means that management is the midwife of these instructional components. Instructional "material without the ability to utilize is worthless" (Akpanudi, 2016) much as "knowledge without the ability to impart is useless (Quintillianus in Uche & Enukoha, 2004). Instructional material utilization is anchored on application of appropriate attitude, knowledge and skills to guide the learners towards developing desirable values and sentiments through the use of appropriate instructional material for a specific lesson/discipline. According to Abijubade (2016) people can learn facts from things, (instructional material inclusive) but they learn attitude from people. This means that instructional materials supplies facts, skills and values, but they are blended when desirable attitudes are generated by the teacher in the course of utilizing an instructional material. The interplay between the instructional material and the teacher that engender evaluation at the best interest of the learners is presented in figure 1 below:

Figure 1.



The illustrations in figure 1 above show the following:

The teacher and instructional material (being the sources of teaching are coordinated by the objectives or purposes of teaching social studies. Upon such foundation, the instructional material is valued and sourced. Similarly, the teacher is recruited under such purposes and valued as he delivers in line with the dictate of the discipline whose result is the inculcation of reflective and contemplative skills towards confronting the community/societal problems.

The illustration also entails that instructional materials sourcing is anchored on certain criteria and specific characteristics that are subject/topic specific. These form the crux of its relevance which is the sole of instructional material selection and utilization. Instructional material being a technology he/she is also valued in terms of being a model, instructional facilitator and counsellors, three broad values. According to Inyang (2015) such values of technologies includes Economy, Efficiency and Quality control. On the other hand the teacher is recruited after training in both professional and personal characteristics (Umoren and Ogbodo). He Albeit, in utilizing an instructional material, the different learning styles and sensory appeals of such materials should be understood by the teacher. This would aid among others to reinforce verbal and visual messages, focus attention, motivate interest, provide a

source of information and authority saves teachers. Planning time, provide experiences not otherwise available, (especially amongst cognitive, affective and psychomotor domains), elucidate verbal concepts (Abimbade 2006), and most importantly, make learning pleasurable and more permanent. Misuse of instructional material could lead to misconception of ideas, cause confusion and make a learner hate the subject and never gain back the motivation (Abimbade 2006); and make the learner to feel that the school/class climate is hostile, suggesting that he or she may not belong there (Isangedighi, 2003) due to social insecurity.

From the foregoing, evaluation of utilization efficiency may take the following pattern as enlisted in table 2 below:

Table 2.

S/N	ITEMS	INDICES	1	2	3	4	5
1.	Teachers' management	• Introducing the instructional material.					
	skill	 Explanation of contents (labels, images, colours etc.) 					
		 Matching instructional material with lesson time/period-morning, sunshine, before/after break etc. 					
		 Question spread (gender, age, class position, ability and special needs consideration), directional/appropriate 					
2.	Display	 Appropriate time in the lesson 					
		 Visibility enhancing 					
		 Availability of display format/enablers 					
		• Framing					
3.	Inducing learners' participation	 Identification of images (clear images and unambiguity of direction of use) (cognitive) 					
		 Forming relationships and discriminations (cognitive) 					
		 Invoking appreciation and criticism (affective) 					
		 Compelling valuing and creating sentiments (affective) 					
		 Causing physical participation/invoking interaction (multiple ways) (psychomotor) 					
4.	Removal skills	 Timely removal from sight and others 					
		Appropriate removal					

Humanity and compassion (inclusion and exclusion), currency, accuracy, completeness and reduction of level of difficulty (readability, view ability, number of steps provided in logical sequence, reality of illustrations, and concept restrictions (one at a time) is a shared function of both conceptualization or design and utilization of instructional. A poorly designed material can be made effective during utilization, where the teacher is skillful. Interaction among the

classroom stakeholders is central to utilization efficiency which attracts productive (reflective and contemplative) learning.

Evaluation of Environment in Visual Materials for Social Studies

Environmentalism is both philosophical, sociological, psychological, utilitarian and pragmatic among others. Its adoption as a foundation for design, production, utilization and evaluation of instructional material is a direct response to the 21st century worldorder which is hinged on sustainability. Agenda 21 implies that every human endeavour should uphold the principle of environmental sustainability; thus, it is not out of place to evaluate the sustainability practices surrounding the production and utilization of instructional material. Sustainability is... meeting the needs of the present generation in a manner that will not jeopardize the effort of the future generations to meet their own needs. Thus, damages and wastages are very unsustainable. It replaces the former ideals which emphasized "conquering the environment for economic purposes" (Nuhu, 2005). Prince Edward Island (2008) aversed that safety practices should be reflected in both texts and other visual materials; thus, evaluating environmental sustainability practice in instructional material spans from the quality of the material used for producing the instructional material, the content imbued with safety practices such as use of helmet, seatbelt, safety signs like no smoking, no littering, etc. as well as during utilization (e.g. manner of display in relations to safety of the teacher and students, tasks assigned for interactivity, instructional material relative freedom from harm among others.

Table 3: Environmental compliance/safety checklist.

S/N	ITEMS	INDICES	1	2	3	4	5
1.	Material quality	• Smell					
		• Level of preservability					
		• Level of repairability					
		• Neatness					
2.	Safety practices reflective in	Humans depicted with safety practices					
	content	(Helmet, masks, globes, seatbelt, etc.)					
		• Human response to whether (coat, suit,					
		others)					
		• Safety signs (where applied -speed limits,					
		etc.)					
3.	Utilization practices	Safety display level (threat level)					
		• Care for the instructional material during					
		teacher-learner; learner-learner interaction					
		(control-level)					
		• Tasks assigned (risk level)					
		• Health friendliness (health hazard level)					

The Onus of social studies discipline is the study, declaration and practice of the relationship, the mutuality level between man in, and the environment whom he holds the largest stake/share. To Nuhu (2015) it reflects how man influences and inturn being influenced by the environment. Evaluation of instructional material cannot be complete where the environment is not evaluated in line with best practices.

Conclusion

Rote learning is a function of pro-cognitive, shoddy planning, rote delivery based on repetition of facts and unintegrated (partial) evaluation system. Academic programmes in Nigeria were formerly based on these type of learning which ignored attitude issues. Instructional/curriculum designers have agreed that such ventures should be made very dynamic; yet, with profound principles. Every level of instructional plan (including instructional material planning) should move along with evaluation (using instruments appropriate for each stage of the plan). Contents, environment and utilization (CUE) model provides evaluation methodological niceties for social studies instructional material in particular and for social science in general. The recommended checklists according to Bassey (2002) offers rigorous yet, functional approaches considering that learning is the function of the learners, (Bassey 2002) as such the teacher must provide the right atmosphere and classroom climate to learn facts, skills, values and attitudes from the teacher and the co-teacher (instructional material) that are relevant for functional living.

In theory, the communication prowess of this model is based on Source Credibility approach of Havland and Weiss (1951) which believes that a high credibility source of consumermessages are always longed for, for its objectivity, competence, trustworthiness and dynamism-features, which anticipated visual materials are to uphold when evaluated at every stage using this model. CUE Model also adopts the instructional planning principles of Beland (1991) modified by Bassey (1987), in Bassey (2004) known as "opportunistic model." The model believes that individual's learning capabilities must be identified and matched with the instructional materials which are fore-organized by the teacher. It also relates with the intuitive Task Approach of McCutton (1979), modified by Bassey (2004) which explains that what happens during the lesson should be planned for and not what should happen, which is the position of the determinists led by Tyler (1949).

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