INTEGRATED KNOWLEDGE SERIES

VOL. II

(PEDAGOGICAL APPROACH)

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Edited by

Professor D. O. S. Noibi

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Published by the Islamic Education Trust (Lagos Branch)
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This Publication was sponsored by Al-Manar Printing Press. Saudi Arabia.

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CHAPTER ONE

INTEGRATED KNOWLEDGE PROJECT: THE EXPECTATIONS AND CHALLENGES

Professor M.A. Bidmos

Preamble

Islamization of knowledge; how appropriate is it as a term to label the project with the type of intended objective conceived by the researchers? Is it right to Islamize a system that was originally Islamic but became a victim of bastardization? It should be recalled that the Islamic foundation of what is now known as Western education and, by extension, Western civilization is glaring enough to a number of Western personalities such as Prince Charles of England paying glowing tributes to it.[1] When bastardization is defined as the removal of spirituality from the system, would it be accurate to use the term Islamization to describe the process of resolving bastardization? Is it not apt to simply call the process integration of spirituality? Incidentally, the proposed term (Integration) is not strange. Even in Saudi Arabia, the term *ta'sil*, that is, back to the origin is preferred by scholars working in that area.[2] Science and technology that has placed the Western world at the helms of affairs globally is Islamic by adding spirituality to it. However, as a case is made for the term Integration in this preamble, it must be quickly stated that Expectations and Challenges of the project are the core variables in this write-up.

Introduction

The exponents of Islamization of knowledge (Muhammad Naquib al-Attas 1978 and Ismail al-Faruqi 1982), certainly had a dream; namely to float an alternative education system to the Western secular education which has been imposed on the Western colonies of the world (Muslim countries inclusive). The rationale behind an alternative to the Western education is borne out of the content as well as the end result of Western education. For example, as a result of rejection of revealed knowledge, the Western

education in its content is potentially hazardous and inherently violent. The habit of taking decisions without reference to divine injunctions at any point in time is ominous as it will produce side-effects that are capable of ruining whatever benefits that might have been initially gained. For example, the mindset of the Western man who fathered seven of his own grandchildren by keeping his daughter in the basement of his house for about twenty-four years is bizarre.[3] Another Colombian citizen who fathered his eleven grand children from his daughter presents an astonishing case.[4] The atmosphere of absolute freedom in which the Western youths are brought up is responsible for their taking indiscriminate shootings as a fun which suggests that they may not be able to sustain the elegant structures built by their forefathers.

Be that as it may, whatever consequences the Western education may bear for the Westerners cannot and should not be a source of worry to the Muslims. What is worrisome is the repercussion of Western education in the Muslim countries.

The first and perhaps the most devastating of all repercussions is the Muslim youths' disorientation. Education that is devoid of spirituality is making them (Muslim youths) indifferent to the Islamic ethics and values. The fact that education has produced elegant structures in the West as against detestable environment in the Muslims' countries gets the Muslim youths irritated and even sometimes hostile. They have reacted in a number of negative ways which include outright rejection of Islamic values, considering some tenets of Islam inconsistent with the ''modern'' trends, constituting themselves into nuisances in non-Muslim countries, propagating Islam by using instruments and methods that are antithetical to the ideals and principles of Islam as evident in the actions of the suicide bombers who claimed to be working for Islam in different parts of the world.

Secondly, the political system, the economic principles and the educational theories propounded by the Muslim intellectuals in the Muslim countries are all derived from the Western roots. Apart from scores of Muslim youths who patronize Western universities, the Muslim countries are dotted with Institutions that are built and maintained by the Westerners such as

American university in Cairo, American University in Beirut or American University in Yola, Nigeria. The result is having Muslim elite in politics, commerce and education who are avowed Western ambassadors in the Muslim countries.

Thirdly, the effect of Islamic Institutions like Al-Azhar is rendered either merely tolerable or absolutely irrelevant. Production of personnel for the mosque is considered the main function of such Institutions while production of the workforce for the industry and allied sectors is considered the function of the secular institutions.

Fourthly, social malady as manifested in total disorientation and economic retardation became the image of the *ummah* as a result of 1-3 above.

Obviously, the general outlook in the Muslim countries is characterized by a number of incomprehensible behavours such as the followings:

(I) The transaction of selling Egypt's gas to Israel at a lower market price which results in making Egypt to incur losses amounting to billions of dollars yearly;[5]

(II) The situation where many of the Arab/Muslim heads of state married Western ladies;

(III) The practice of investing in the West more than 70% of the revenue generated from the Arab oil annually;

(IV) The abject poverty in the Muslim countries while the Muslims' oil money is kept in the West to lubricate the Western economy and finance Israel's expansion projects in the Palestine occupied lands;[6]

(V) The event of 9/11 attack on America which, to date, is deceitfully blamed on Muslims and to which there has been no serious refutation from the Muslim elite?[7]

There are so many other actions by the Muslim elite that are absolutely illogical to the extent that such actions do not serve the interest of the *Ummah* but Western interest.

The Expectations

It is thus expected that to change the condition painted above, the antidote is an alternative education system. Hence, **restoration of spirituality** becomes expedient to fill the vacuum. It is hypothesized that the missing link should be integrated into knowledge if we must have it complete and effective. The hypothesis is anchored on the fact that a loophole has been detected. Before going further to elaborate on the expectations, it is pertinent to put the whole exercise of **restoration** in the right perspective. Reaction is the right word to describe the exercise. It is a reaction by a victim of humiliation to a shock. It would be recalled that this is not the first time when Muslims are reacting to a shock. When Muhammad Ali Pasha, fondly referred to as the father of modern Egypt (1805-1848), embarked on a series of reforms in Egypt he sent a large number of Egyptian youths to Europe in order to specialize in various disciplines such as administration, translation, law, and education under the leadership of Imām Rifa'ah Tahtawi.[8]

The *baᶜthāt,* that is, the students on scholarship, were overwhelmed by the kind of development they witnessed in Europe in terms of adequate and elegant infrastructure. Back home in Egypt, they were upset by the contrast as the Egyptian environment was debased and very unattractive. Out of shock, they blamed the debased environmental condition of Egypt on Islam and its tradition which they considered non- flexible and non-dynamic. Taha Husain was in the vanguard of the struggle for total transformation of the Egyptian society.[10] The current political upheaval in Egypt which is popularly known as Arab Spring and which has spread to Iraq, Syria, Libya, Southern Yemen and Bahrain is a manifestation of the failure of the Arab's reaction to that shock. Their reaction has not yielded the desired result of providing an elegant infrastructure and political stability. Yes, they were shocked but failed to address the issue at stake through a scientific approach. So, two centuries later, Egypt remains incomparable to any European nation in terms of provision of adequate infrastructure and political stability (Egypt is generically used here to depict the condition of the entire Arab/Muslim world).

It should also be recalled that Muslims had earlier reacted to a shock posed by a well organized, and coordinated military attack on the Muslim domains in what is called the Crusades (1097-1297CE). That was a combined and well integrated military front, a show of unprecedented solidarity between the Eastern Christians and the Roman Catholic West under the supervision of the Pope Urban II. Salahud-Din al-Ayyubi gallantly rose to the occasion, called the bluff of the crusaders as a result of which Jerusalem was recaptured from the crusaders.[9] The manner in which the crusades ended was a total victory to the Muslims because the crusaders intended total elimination of Islam as well as the total wiping off of Muslims; the objective they failed to achieve. That the crusaders pursued their objective for two centuries but failed was a mark of uncommon resilience and ruggedness on the part of Muslims. It must be pointed out that the type of success story recorded by Muslims in their encounter with the crusaders was not replicated in the 19th century encounter narrated above.

The Westerners, on their own, reacted to the shock of the failure of the crusades mission in a variety of ways. First, they sponsored serious studies of the Islamic literature, the Qur'ān, the Hadith and the *Sharīᶜah*. Institutions of Higher Learning such as the School of Oriental and African Studies (S.O.A.S.), established in 1916 were erected to provide a permanent forum for the vibrant academics who can probe into the Islamic teachings with a view to unravelling the secret of resilience of Muslims and ruggedness of Islam.

Secondly, alternative reading materials were provided to divert Muslims' attention from reading the Qur'ān and Hadith.

Thirdly, the Muslim countries were dotted with institutions of higher learning where the Arab/Muslim youths can read light literature, learn film making and get their minds tuned toward Western values and sophistication as an alternative to al-Aḥẓar.

Fourthly, and that is very recently, the reinvention of the crusades episode. This time around, it is called war against terror. But terrorism was created by the westerners to be used as an excuse for a heavy clamp down on Muslims

for the same objective of elimination and wiping off. Osama bin Laden and Saddam Husain were both recruited as errand boys; while bin Laden was trained, financed and equipped to the tooth and positioned in Afghanistan at the head of Taliban administration to be used against the USSR (communism) Saddam Husain was used against Hayatulla Khumeini, the founder of the Islamic Republic of Iran (1979). In the case of Osama Bin Laden, the crash of communism marked a success story of his (Bin Laden's) task as an errand boy while Saddam Husain was not that successful in his own mission against Iran. However, both of them allegedly became terrorists on completion of their assignments. The intriguing questions are: as at the time of their servitude to the US authorities, what was their status? Were they terrorists as they brutally engaged USSR and Iran? Or were they just transformed into terrorists only on completion of their assignments when the relationship between them and America became sour? What was their status as they were fighting for America? The Western world is currently reinventing the old war of crusades which is now deceitfully termed war on terrorism.

With the concept of **integration of spirituality**, Muslims are reacting not only to the shock of neo-crusades but also to that of reckless intellectual assault inflicted on the Muslim *Ummah.* Being conscious of the fact that foreign principles are employed to manage the entirety of their affairs, Muslims are expected to use an intellectual instrument to address the intellectual assault. The expectation is to bring back the feast of the golden era of Abbasid dynasty when Muslim scholars excelled in all branches of knowledge with the Qur'ān and Sunnah serving as the source of all their operations and inspiration. The world view emanating from the intellectual practices of the period was informed by the purpose of creation as entrenched in the Qur'ān and Sunnah. There was a perfect harmony between the Ulama, the ruling class, the technocrats and the commercial operators as against the separation of religion from state which is now the norm under the influence of Western frame work. The expectation is to substitute the current practices with the frame work that is derived from the Qur'ān and Sunnah which will ultimately culminate in self sufficiency in theory and practice for the sole aim of running our affairs within the context of a mechanism internally generated. The

expectation, it must be stated clearly, is not borne out of ethnic vendetta or religious prejudice of rejecting the current principles for rejection's sake. The expectation is borne out of the evils and havoc that are the outcome of the secular principles. What is desirable, anyway, in the Western values and principles that can produce elegant infrastructure but are inherently hazardous

The Challenges

To bring back the feat of the golden era of Abbasid dynasty is a viable project. But that must be pursued by using intellectual instrumentality to address the intellectual assault. However, it is soul bugging that there is nothing concrete to show for the **restoration project** that has spanned three decades. If after thirty years of using intellectual instrument to address intellectual assault, the Ummah has not made any headway, there is a problem. We have been exceedingly active in the area of literature production. Volumes of literature such as the following are already in circulation:

(I) **The Role of Religion in Education, Aims and Objectives of Islamic Education.** Jeddah, King Abdulaziz University by Qutb, M. (1979)

Islamization of Knowledge: General Principles and Work Plan. Virginia, IIIT USA by Abu Sulayman, A.H. (ed.) (1989)

Partnership and Profit-Sharing in Islamic Law. by Siddiqi M.N. (1985). London. The Islamic Foundation

Curriculum and Teacher Education. by Al-Afendi M.H. & Baloch N.A. (1980) King Abdulaziz University

Restoring Spirituality and Morality to Education: The Role of Muslim Intellectuals in all Fields of Learning by Noibi, D.O. S. (ed.) (2013) IIIT under its South Western Nigeria Programme.

(II) In-Brief Series by IIIT

Epistemological Bias in the Physical and Social Sciences. Elmessiri, A.M. (ed.) (2013)

The Quranic World View: A Springboard for Cultural Reform. by Abu Sulayman (2013)

The Islamic Vision of Development in the Light of Maqasid ai-Shari'ah. by Chapra, M.U. (2008)

Revitalizing Higher Education in the Muslim World. by Abu Sulayman, A.A. (2007)

(III) Journals that have been produced under Islamization of Knowledge project.

Muslim Education Quarterly Ashraf, S.A. (ed.)

The American Journal of Islamic Social Sciences. Syeed, S.M. (ed.) etc.

(IV) Other publications by non-Muslims;

It is interesting to note that a good number of non-Muslims or non-Islamic institutions do develop interest in writing about Islamic values and ideals. For example, Harvard University, USA has a deep interest in Islamic Banking and Finance as evident in organizing conferences and seminars exclusively devoted to Islamic Banking and Finance which have always produced a lot of materials such as:

Proceedings of the Third Harvard University Forum on Islamic Finance. S.Nazim Ali Director of Operations (2000)

Islamic Finance and Development. S. Nazim Ali Editor (2014)

Normally, we should *ab initio* embark on theorization and books production as a preamble to the project proper. But if theorization and the preamble to a book would take thirty years, how many years do we devote to the book proper? It is unacceptable that the *Ummah* still relies on importation of its daily needs as a result the *Ummah*'s inability to process its raw materials into finished goods. We must, therefore, identify and discuss the challenges that have so far militated against profitability of the **restoration** project.

First, the Purpose of Research:

A critical examination of the purpose of research by the Muslim scholars may reveal one of the greatest challenges that could have been militating against success of the project. As academics, what role does the thought of or inspiration for promotion play in our researches? It is pertinent to ask further that from day one of our career in universities, what is the motivation for our researches? Aren't we carried away by the syndrome of publish or perish? Are we not in a hurry to move up the ladder? A situation where an academic has his mind fixed on the number of publications needed to move from one level to another is anti-purposeful scholarship. Even when we are writing about restoration, we are either aiming at obtaining a doctoral degree or targeting publication for promotion. Extrinsic value has always informed our operations. We cannot afford to embark on a longitudinal research that spans about five years or more before the result is obtained. Working on a vaccine to treat a particular ailment may span two or more years which a researcher for promotion cannot afford to pursue. Are we in tandem, for example, with the kind of researches that have produced Blackberry, the internet gadgets or sundry utilities?

The common practice is to embark on data collection which is statistically analyzed for the purpose of producing a paper for publication within a week. The culture of publishing for promotion cannot serve the purpose of the integration project. It must be emphasized that changing the educational system is not the ultimate goal of this project; it is rather a step toward the change of attitude and that is against the back drop that our world view and our general life style have been thoroughly influenced by the prevailing education system. Therefore, any attempt at alteration of all that will span some years of concentrated researches that are segmented in a manner that gives each segment an objective which is evaluated periodically until the ultimate goal of change in the societal structure and general life style is attained. This purpose is institutional and must be coordinated and occasionally evaluated centrally. It is totally at variance with the publish-or-perish culture which is both individualistic and short time based.

Secondly, the Research Methods:

The research methods as stipulated in the secular realm have so far dominated the approach and content of our researches as Muslims. The quantitative approach which is based on data collection, statistical analysis and interpretation of the data all of which are known as empirical method is fondly considered the norm in most research endeavours. Though there is nothing wrong with this approach which can as well be deployed to do researches in the Islamic sphere, the fundamental issue is the object of research to which the secularists apply this method. The object is science when science by their definition means the acquired knowledge that can be obtained only through observation and experiment. This notion of science totally rejects the revealed knowledge which they (secularists) termed priori, self evident, authoritarian and mystical. Rejecting revealed knowledge, it must be noted, is tantamount to rejecting the avalanche of information that could not be sought elsewhere aside the Qur'ān and Sunnah and which are indispensable to the development of normal life for man. If man, as a matter of design by his Creator, inevitably requires the information contained in the revelation for a normal living, throwing away such information will amount to shooting oneself in the foot. This has been a paraphrase of the physics/metaphysics debate which gives science a very myopic definition and scope. Science, in the Islamic sense is *ᶜilm* (Arabic) which means knowledge, wisdom, science and revelation combined.

The problem is that the research method that is preferred to do research in science in its restricted secular definition and scope cannot be adequate to do research in science in its wider Islamic definition and scope. While Islam accepts the secular classification of knowledge to acquired and revealed, Islam, first, recognizes revealed knowledge which is rejected in the secular parlance and, second, Islam gives another classification of knowledge which is *farḍᶜayn* (compulsory and mandatory education on all members of the society) and *farḍ kifāyah* (compulsory but not mandatory on all members of the society). Regarding *farḍᶜayn* for example, it is compulsory and mandatory

that all members of the society recognize the relationship between them and their Creator, the purpose of their coming to this planet, the next abode as they depart this temporary station, the relationship between this temporary station and the next abode and the mode of preparation for the next abode. Whereas, the *farḍ kifāyah* manifests in the profession of medicine, carpentry, teaching or engineering which must be provided in the society but it is not mandatory on every member of the society to specialize in those professions. Once an individual or a group of persons specialize in a profession other members of the society are absolved of the responsibility. Any discipline that falls within the *farḍ kifāyah* category such as medicine, carpentry, teaching etc is an acquired knowledge that is qualified for the empirical research methods as stipulated in quantitative category.

The qualitative research method is the other side of the same coin. To conduct a research in the *farḍ^{c}ayn* realm, it is necessary that the researcher deploys qualitative research method without suggesting that quantitative method is irrelevant. The point of emphasis is that the secularists by declaring revealed knowledge a no-go-area are rejecting a huge chunk of knowledge without which man can make a successful living which explains the indispensability of the information contained therein.

A quick illustration suffices, namely that the information about the next abode of man after his sojourn in this temporary station cannot be acquired through observation and experiment but through revelation. However, the effect of belief (or disbelief) in the next abode on man's behavior in this world can be investigated using the secular quantitative research method. A believer in the next abode exercises restraint and caution in all his dealings believing that all his dealings while on this planet constitute a preparation for life in the next abode. Destruction of properties, stealing public funds, armed robbery, murder, indiscriminate shooting, examination malpractices, alcoholism, adultery and fornication, rape, etc are the behavioural patterns of disbelievers in the next abode who are not using their dealings on this planet to prepare for the next abode. By so doing, we are checking subjective belief against objective reality. In other words, belief in the hereafter is subjective

while its effect on man's behavior in this world is an objective reality. Similarly, a disbelief in the hereafter, though subjective, manifests in negative behavioural patterns which are an objective reality.

The belief in the next abode as an antidote to the violence of any description is a tip of iceberg as there are other items in the revealed knowledge that can be designed into corrective measures which could enable man to live successfully in a violence free society. The designer of the item is man's Creator Who knows what is good for man (Should He not know He that created, And He is the Subtle, the Aware Q.67:14). Curbing crimes of all descriptions at all level; national or international by means of training and deployment of law enforcement agents and provision of sophisticated weapons will remain a mirage unless it (crime) is tackled at the level of the heart which is the point of conceiving and hatching matters; good or bad. In the wake of the financial monster called economic meltdown in 2007, researches show that usury (*ribā* in Arabic) was a major factor among others. The Western world opted for cutting down the interest rate in their commercial transactions to the point of 0.05%, [10] which is in tandem with the Islamic prescription of zero interest economy. A 400-page report on the use of torture on the suspects and detainees at Guantanamo camp which was released by the American senate on Wednesday 10th, December 2014 caused a row and condemnation around the world for it shows the use of unprecedented inhuman treatment meted on human beings; that is a clear reflection of what disbelief in the revealed knowledge can produce.

There are so many issues in our individual or corporate life that the mundane laws and principles cannot resolve except the facilities in the revelation which explains the interconnectedness between the mundane and the spiritual in Islam whose separation will culminate in disintegration and anarchy as witnessed today in different parts of the world.

How can the Muslim intellectuals who are brought up in the secular research culture in which only part of knowledge (the acquired) is paraded could do research in the other half of knowledge (the revealed) that has been so far excised?

The Main Task

The restoration project is multidimensional.

First, the authenticity and legitimacy of the revealed knowledge must be established with a view to showing the gains of its adoption as against the losses from its rejection. What is it that man stands to gain from revealed knowledge? The question must be answered in empirical terms. In contrast, it must be empirically established what man stands to lose by holding tenaciously onto the acquired knowledge to the exclusion of the revealed knowledge?

Secondly, articulation and analysis of mode of dress by male and female, reckless male-female intermingling, proliferation of weapons, political log jam in which selfish interest is the moving spirit, business transactions that revolve around usury, legitimization of same sex marriage, promotion of nudity through film industry, production and circulation of alcohol, single parent syndrome, secularization of the revealed religions (Islam inclusive), different cheating techniques in business, child trafficking, sex abuse of minors, economic strangulation of the weak nations by the economically superior nations, pursuance of senseless and needless wars, etc. should be empirically carried out in establishing the hazard inherent in secular education because it is not enough to assert that secular education is hazardous without proof.

Thirdly, the restoration concept must lead to the emergence of a new paradigm in education system which must be capable of:

(a) Evolving a new modem of schooling in which the acquired and revealed knowledge are harmoniously knit;
(b) Making sure that (a) above is capable of bringing about a new paradigm in technology;
(c) Arising from a & b above, is the capacity to provide for all needs of the Muslim *Ummah* such as housing, automobile, roads, recreation centres, schools, hospitals, industries, medication and leisure.

(d) Evolving an entirely distinct life style in terms of mannerism, courtesy, interpersonal relationship manifesting in a general atmosphere of calmness.
(e) Extending the gains of the emerging education system to non-Muslims on account of the fact that Muslims currently benefit from the gains (and the woes) of secular education. There is no denying the fact that Muslims perform pilgrimages yearly on board of Western aircrafts in addition to other products.

Fourthly, the habit of ad hoc approach and individualism that characterizes the project must be substituted with the culture of harmonization, cooperation, coordination and constant evaluation to really ascertain the progress made and what is left to be accomplished.

Fifthly, "what is left to be accomplished" implies that there is a target set *ab initio*. There must be aims and objectives which are set and evaluated at regular intervals to ascertain how much has been accomplished.

What to Avoid

Traditionally, Muslims are usually carried away by the hallmark of Islam which is expressed in its beauty, relevance, suitability, efficacy, ever-currency, universality, comprehensiveness, and futuristic application. Volumes have been written on these aspects of Islam with the Qur'ān and *Sunnah* providing evidence and insight. But the social conditions in the Muslim countries point to the opposite of those qualities that are attributed to Islam. If our condition is so precarious, where is the beauty and efficacy of Islam we have written volumes about? Where is the unity among Arab/Muslim countries? Where is the infrastructure in the Arab/Muslim countries? Where in the Muslim countries is the type of unity and cooperation that are exhibited by the mature economies such as G8, G20, APEC and EU? It is the Muslims that kill themselves and invite aliens to join in the killing of brothers. Could it be that the Muslim intellectuals are just doing the project as a busy body without any rapport with the political class who can authorize the utilization of the results of researches? We should, therefore, avoid;

Perpetual theorization and books production on integration project;

Endless eulogizing the qualities of Islam without practicing those virtues;

Continuous wolf-calling, as we have found it convenient blaming our predicaments on external enemies;

Inability to do self-evaluation;

Inability to translate our research findings into use;

Inability to utilize natural resources deposited in our soil into finished products;

Over glorification of *as-Salaf aṣ-Ṣālih* (the earlier generation)

Conclusion

It seems there is no much to show, in concrete terms, for the restoration project after three decades of rigorous researches and continuous writings with volumes of materials in circulation. If all efforts to seek fresh interpretations to the holy Qur'ān and *Sunnah*, to eulogize the first generations of *ulamā*', and reproduce their valuable materials bequeathed to us have not translated to concrete results, we should be asking questions. Three decades is too long a period for only theorizing and the writing of preamble. The goal of the project is not and should not be endless writings. The goal is to engender a new thinking, a new life-style, new norms and values that are capable of adding a new corpus of knowledge to the existing ones thereby evolving a new technology and building new infrastructure. The intriguing questions include: where lies the problem? Does it lie, for example, in the objectives set *ab initio* or did we embark on the project without setting objectives against which we can constantly check our efforts? Or are we using a wrong methodology in executing the project?

Given the fact that the failure of the existing education system is not in the lack of infrastructure but in the concomitant side effects such as listed above,

the desired benefits of the restoration project must be devoid of such side effects. Specifically in the former colonies, the repercussions of the existing education system include but not limited to helms men of different categories using overt and covert means to pursue Western agenda and protect Western interest at the expense of the welfare of the innocent citizens they were elected to govern, a total disorientation, amassing wealth for keep and turning corruption into norms and virtues.

It is, therefore, desirous that we;

(a) review our objectives, if any have ever been set, or state fresh ones if the previous ones are unattainable;
(b) set achievable goals that are subject to constant evaluation;
(c) make the goals and objectives time bound;
(d) desist from endless theorizing as well as over-glorification of *as-Salaf aṣ-Ṣālih* who had diligently played their role to the *Ummah*;
(e) form a synergy with political leaders who control the wherewithal for the implementation of the research findings;
(f) get a clear picture of what restoration means and entails part of which is teaching every subject at all levels of education within the context of *Tawhīd;*
(g) resist the temptation to create the wrong impression that the pleasures of this world are to be jettisoned for those of the hereafter- *la tansā naṣībaka minad-dunyā-(*Nor forget thy portion in this world) (Q.28:77);
(h) make a case for the restoration project by way of drawing attention to ills of the current education system without necessarily being confrontational;
(i) Focus on ways and means of actualizing the ideal personality and ideal society of Islam rather than dwelling theoretically on the beauty of Islam at the expense of concrete results; and
(j) Convince the non-Muslims that the benefits of the restoration project are universal.

References

1. Prince Charles of Britain (1994: 14-16) *Al-Islām wal-Ālamul Gharbī.* Ar-R*ā*bitah Issue 349 1994 CE Makkah Umm Al-Qura University
2. This writer had a discussion with Professor Omar Hasan K. Ksule, Faculty of Medicine, King Fahd Medical City, Riyadh. Saudi Arabia on the controversy over the term Islamization of Knowledge who confirmed that the term *Ta'sīl* is used by researchers in Saudi Arabia.
3. An Austrian man: source CNN 28th April, 2008
4. The Punch 30th Mach, 2009 p86
5. That was in the days of Hosni Mubarak. ''Source'' Aljazeera; 14th June, 2014
6. Carter, Jimmy (2007), Palestine Peace and not Apartheid. New York. Simon & Schuster
7. The Report of Commission of Enquiry on 9/11 Attack on America. White House. Washington. 2006.
8. Bidmos, M.A. (1980), Masra*ḥ*a Kīliubatra: A Translation and Discourse. M.A. Dissertation at the Department of Arabic and Islamic Studies, University of Ibadan. Ibadan.
9. Taha Husayn (1969) *Min Hadīth Shi^{c}r wa Nathr*. Dārul Ma^{c}*ā*rif Miṣr
10. Taha Husayn (1969) *Min Hadith Arbi^{c}ā*. Dārul Ma^{c}*ā*rif Miṣr.

Other sundry and relevant references

Abu Sulayman, A.H. (1989) Islamization of Knowledge: General Principles and Work Plan. Virginia IIIT USA

Abu Sulayman. A.H. (2013) The **Quranic** World View: A Springboard for Cultural Reform. Books-In-Brief Series. IIIT

Al-Afendi, M.H.& Balock N.A. (1980) Curriculum and Teacher Education. Jeddah. King Abdulaziz University.

Bidmos, M.A. (2013) Islamic Education in Nigeria: Its Philosophy and Research Methods. Lagos. UNILAG Press

Bidmos, M.A. (2014) Western and Islamic Education Debate: A Display of Paradoxes. Convocation Lecture, Ilorin. Al-Hikmah University

Chapra, M.H. (2008) The Islamic Vision of Development in the Light of *Maqasid al-Shari'ah*. Books-In-Brief Series. IIIT

Chava/David Nachmias (1996), Research Method in the Social Sciences, Fifth Edition. London Holdder Education

El-Misiri, A.M. (2013) Epistemological Bias in the Physical and Social Sciences. Books-In-Brief Series IIIT

Nazim, A.S. (2014) Islamic Finance and Development. Harvard University. USA

Noibi, D.O.S. (2013) Restoring Spirituality and Morality to Education: the Role of Muslim Intellectuals in all Fields of Learning. Lagos. IIIT under its South Western Nigeria Programme

Qutb,M. (1979) The Role of Religion in Education: Aims and Objectives of Islamic Education. Jeddah, King Abdul-ᶜAzīz University

Siddiqi, M.N. (1985) Partnership and Profit Sharing in Islamic Law.. London. The Islamic Foundation.

Muslim Education Quarterly. Ashraf S.A. (ed)

The Proceedings of the Third Harvard University Forum on Islamic Finance Nazim Ali S. (ed.)

The American Journal of Islamic Social Sciences. Syeed S.M.

CHAPTER TWO

AN ISLAMIC PARADIGM OF TRANSFORMATIONAL TEACHING

DR. I.A. MUSA

Abstract

This paper explores the use of various resources hewed from the primary sources of Islam to project a philosophy of teaching that is aimed at transforming both the learner and the teacher. In the contemporary world of contending values and degenerating morality, mankind requires recourse to a durable and dynamic model for training generations of learners. The main strategy is to utilise pragmatic approaches used in the Qur'ān and Sunnah to guarantee effective learning but more importantly to consciously develop in students at every level and in every form of education the capacity to function as vicegerents of Allah in their areas of specialisationand in their daily life activities. This approach represents a mission to simultaneously develop in learners ideal Qur'ānic conducts and professional competences both of which are required to address the needs of human societies. It is concluded that if teachers implement to the letter the paradigms proposed in the paper, they would serve as catalysts of positive change in the contemporary and future worlds.

Introduction

Various perceptions and contributions have produced education superstructures currently dominated by the Western philosophies of education. The Muslim world needs to appraise the demands of contemporary education with a view to effecting immediate improvement and envisioning an ideal education system of the future. Teaching and

learning remain the bedrocks of the means of perpetuating the knowledge acquisition tradition and of creating new intellectual insights that will advance civilization and ultimately ensure durable human welfare. Thus, the quality and relevance of the content of education is as vital as the effectiveness of its delivery. These two dimensions: message and means of its delivery are two unique resources of the Qur'ān that every education enterprise will find inexhaustible.

The educational philosophy of the Qur'ān, its dimensions, vision, objectives and approaches should engage the attention of every human generation. Muslims should especially feel obligated, in view of their developmental needs, to practically demonstrate the superiority of the Qur'ānic education philosophy through outstanding contributions to all spheres of human existence. The Qur'ānic vision of *Khayra Ummah* or Best Community (Qur'ān 3:110) and *Khayran Kathīran* or Abundant Good (Qur'ān 2:169) domiciled in *ḥikmah* (wisdom divinely bestowed) should translate to pragmatic models of development Muslims should bequeath to generations of humankind.

The main goal of teaching is to ensure students learn in a way that the knowledge, skill and values gained benefit the individual recipient and ultimately the society. The recipient must be assisted to develop the capacity to transform and transfer what is learnt to the subsequent generations. Whenever a teacher is engaged in instruction, he is indirectly teaching an infinite number of students since what is taught will be transferred through 'subsequent teachers' in the micro and macro classrooms. The former type is the formal limited enclosure found in schools while the latter is the entire

earth which constitutes a massive learning environment for all and sundry. The quality of the knowledge to be transferred thus becomes important. The teacher has a responsibility to transmit knowledge in a better way than he has received it. Ensuring an unbroken line of transmission of knowledge is the essence of the prophetic tradition that "the best of you is he who learns the Qur'ān and teaches it". Since the Qur'ān is a repository of all forms of knowledge, teaching the Qur'ān extends to teaching all forms of beneficial knowledge. The line of transmission of knowledge is traceable to the inaugural teaching-learning scenario between God and Adam. God handed over to Adam the sacred duty of teaching. The line of transmission of the teaching enterprise remains unbroken and will remain so till the end of time. Emphasis has been and will continue to be on evolving proven strategies for achieving this onerous task. This is the reason why teachers are deliberately prepared through formal training.

After the acquisition of general training, each teacher is expected to prepare himself for specific teaching tasks. He is thus required to 'retrain' himself specially for the particular teaching endeavour he is embarking on putting at the pedestal of his self-training programme *taqwa* (God's consciousness) which is *khayra zādin* or best ingredient of planning (Qur'ān 2:197). Teaching is desecrated when executed without a rich plan, the foundation of which is *taqwa.* As the *khalīfah* (vicegerent) of God, the teacher should play roles analogous to the teaching strategies God utilised in teaching Adam 'the names of all things' (Qur'ān 2:31). He is also to see the role of Adam, the learner as representing the entire humanity. Therefore, when he teaches any member of the progeny of Adam, the learner represents humanity yet

unborn. The necessity of equipping that individual before him adequately to be able to transmit knowledge meaningfully becomes a huge task.

In view of the enormous task before him, the teacher should not merely pass information across but produce an analyst of information capable of discovering new dimensions of knowledge. On an incremental basis, insightful information emerges from teaching-learning contexts. The product of the insightful interaction between teachers and learner is made available to society. The emphasis, here, is on new knowledge which the teacher gains through his own self-education, self-training and his own search for additional knowledge and skill before engaging the learner. He gains new knowledge through both *tadabbur* and *tafakkur* both of which translate to insightful thinking. The processes of re-examination and mental exercises enable him to gain new knowledge and fresh ideas about new dimensions of knowledge and how best to disseminate it. The logic is that a good plan results in good teaching and good teaching produces effective learning.

Before entering the classroom, the teacher ought to have passed through a process of intellectual transformation. This means that he does not rely alone on what he has been taught but he constantly strives to improve on the quality of the content of his education. This is part of the interpretation and implication of the Qur'ānic submission that "any knowledgeable individual must have a superior intellectual" (*Qur'ān 12: 76*). As a transformed teacher, his mastery of the subject-matter is constantly improving and so are his pedagogical skills. He is equipped with different strategies of ensuring that his teaching becomes a huge success. Therefore when one strategy is ineffective,

he has an array of strategies in his pedagogical repertoire which he deploys to the teaching-learning context.

Transformational teaching as conceived in this paper aims at evolving a mechanism of sustained improvement of instruction. Each teaching-learning encounter is a unique milestone in the teaching-learning process. The target is to effect positive change in the learner based on similar experience which had earlier occurred in the teacher. The initiator of the double-edged transformation is the teacher who leverages on the pedagogic resources hewed from the Qur'ān and *Sunnah* to benefit the learner and ultimately develop his own intellectual and pedagogic resources. A curious question is: how does the teacher get transformed in his quest to teach and what kind of transformation does he undergo? The teacher ought to approach teaching as a learning experience; an opportunity to gain new insights into the subject-matter as well as improve his skills. Teaching, therefore becomes an opportunity to acquire new skills, perfect established ones, gain new knowledge and a renewed commitment to advance knowledge. The objective thus becomes making the teaching-learning experience better at each session.

The Premise

The target set in the Qur'ān for mankind for achieving success in life is the quest for excellence (Qur'ān 17:7). Excellence in conduct should be paramount since excellence in other spheres will be useless without moral probity. All teaching-learning activities must, first of all, be predicated upon a Philosophy of Excellencewhich every Muslim school should adopt**.** Achieving

excellence is the philosophy of Islam. Muslim educational institutions should continuously renew the mission of excellence. This philosophy should be constantly renewed and pursued using different credible opportunities and platforms. It should be reflected or embedded in various school policies, facilities, activities (teaching-learning processes), image, development plans and projections.

The Qur'ān promotes the culture of excellence as a more vital objective of education rather than producing large population of educated people who are extremely limited in their contribution to their own development let alone advancing the human race (Qur'ān 67:2, 16:90, and Qur'ān 55:60). Excellence as encapsulated in the concept of *iḥsān* (goodness) is further reiterated in a prophetic tradition: "Verily, Allah has prescribed excellence with regard to all things" (an-Nawawī 17). Application of various pedagogical principles to achieve excellence is embedded in the Qur'ān. The teacher is saddled with the task of discovering and deploying Qur'ānic resources to each teaching-learning encounter.

The nomenclature of accurate Qur'ānic recitation, *tajwīd*, is a relevant metaphor here. According to authorities of Qur'ānic recitation, the term *tajwīd* is synonymous with *taḥsīn* which means 'improving or making something better' (Qamhāwī, 2009:1, Cowan, 1999:146). Each time you read the Qur'ān, you aspire to make your recitation better than the previous recitation through achievement of greater accuracy and melody. In transformational teaching, greater improvement is achieved in terms of articulation of objective (*niyyah*), quality of planning (*tazawwud*) and

implementation (*ittibā*ᶜ). The implication is that a constant review of previous planning and execution of the plan is inevitable. Readiness to accept the outcome of evaluation is also not negotiable. It is therefore a cyclic process of planning, implementing and reviewing propelled by an uncompromising focus on excellence.

Basic Concepts

Education, pedagogy, teaching, learning must be well construed in the context of this discussion. Education entails the acquisition of all beneficial knowledge, skills and attitudes. Its scope covers the affairs of this world and afterlife. Education also entails that which is consciously acquired through formal, informal and non-formal means and that which is unconsciously acquired through various life experiences. Man is in perpetual state of learning learns from his immediate and remote environments. He is influenced by the activities of persons around him and in the 'distant' digital world, many or perhaps an infinite number of people would influence his actions or inactions depending on the state of his heart (mind). The quantum of information received through unconscious education is incomparable to that consciously learnt. Therefore, education, in Islam, is primarily focussed on the heart. The Qur'ānic concept of '*Qalb Salīm'* or 'Sound Heart'(Qur'ān 26:88-89) is akin to the prophetic description of the heart as '*Mudghatun fil-Jasad* or 'Morsel of Flesh in the Body'. If the heart is sound the entire body is sound and if defective the human person is destroyed. Islamic education focuses on training the heart, the factory of ideas which communicates either wholesome or unwholesome information to parts of the body. Al-Ghazālī

(2009) has rightly submitted that "the heart itself has the authority and it is like the king that controls the limbs and it asks them to do whatever it wants".

Teaching involves assisting the learner to acquire insightful knowledge, diversified skills and ideal conducts that are in tandem with divine guidance. The extent of the teacher's role is encapsulated in '*al-Balāghul-Mubīn'*which involves "conveying a message in the most effective possible way" (Qur'ān 5:92, 16:35 & 36:17). The teacher must comprehend the meaning, dimensions, implications and applications of "*al-Balāghul-Mubīn"* in the instructional process. For the task of teaching to attain the level of *al-Balāghul-Mubīn"* it should first aim at producing spiritually profound and intellectually sound human beings. The educated elite produced through this process should be able to establish enduring spiritual and intellectual legacies that impact the immediate and subsequent generations. The Qur'ān calls such distinguished individuals the *Ulul-Albāb* (Possessors of Sound Knowledge). Emphasis in the teaching process should focus on turning out God-conscious specialists in various disciplines. Kamal Hasan refers to this group as integrated personalities. He submits further that:

> the production and growth of more Islamicised intellectuals, scholars, scientists, professionals, political leaders and educated classes who combine or unify scientific and worldly knowledge with religious values, thinking and contemplation (*fikr* and *tafakkur*) with spiritual remembrance (*dhikr*) of Allah (SWT), worldly means with other worldly ends, reason with Divine revelation, professionalism with *taqwa* (that deep ethical consciousness of the pleasure and displeasure of Allah [SWT]). (Hasan, 2010: 183)

The educator is, for instance, projected as an exemplar in the Qur'ān. Prophets of Allah mentioned in the Qur'ān functioned as teacher-exemplars who advocated positive change within different social contexts. The Qur'ānic concept of *Uswatun Hasanah* (Good Exemplar) is valid for classroom leadership which the teacher anchors. The Qur'ān recommends: "Ye have indeed in the Messenger of Allah *Uswatun Ḥasanah* for any one whose hope is in Allah and the Final Day, and who engages much in the Praise of Allah" (Qur'ān 33:21). In serving as a good exemplar the teacher communicates with the students through his lifestyle, conduct, dispositions and mannerisms within the perimeters of the learning environment. In the process, learners consciously or unconsciously absorb both his positive and negative attributes.

Learning within the Islamic framework is not merely a process whereby the teacher spoon-feeds the pupil who may or may not contribute resources of his own. Learning entails a conscious effort to gain insights from what is taught. The learner uses his own initiatives and activities in speedily accessing and reproducing knowledge. In the process, he develops new skills and right behaviour. The submission that God does not effect a change in a group that refuses to make change a reality is instructive. Much as the aim of ideal teaching is to effect a positive change in the learner such ambition will remain a mirage without the indispensable input of the learner. The contributions at both the teaching and the learning ends result in a synergy and partnership that benefit the teacher and the learner almost equally.

The Principles

Teaching must be construed as a trust, an obligation and an act of servitude to the Creator. As God's *khalīfah* (vicegerent), the *amānah* (trust) of using the human intellect to explore and manage the earth's resources using *taqwa* (God-consciousness) as the main tool is an obligation. Therefore, the knowledge, skill and values the individual acquires should be deployed towards strengthening *īmān* (faith). Teacher education curricula should provide the framework for empowering educators to train individuals who will effectively discharge their responsibilities to God, mankind and the environment. Indeed, the discharge of responsibilities to mankind and the environment should be regarded as part of the discharge of service to Allah, as it does fall within the framework of *khilāfah* and *'ibādah*Acquiring basic *Sharī ᶜah* knowledge is, according to Al-Ghazālī, *farḍᶜayn* (an individual obligation). The pedagogue's duties constitute a level of trust which he must fulfil by exposing the learner to experiences that will make him recognise God as the Sustainer of the universe and at the same time develop competences that will make him contribute significantly to human civilization. The Qur'ānic injunction urging people to fulfil trusts (Qur'ān 8:27) and the prophetic submission that "each one of you is a shepherd and shall be held accountable concerning his flock" (Sahīh Bukhārī 6719, Sahīh Muslim 1829) point to the indispensability of ensuring the effectiveness of education. The ethico-legal provisions of the *Sharīᶜah* embodied in revealed knowledge should form the basis of an ideal curriculum. The other component of the curriculum which

covers a specific area of specialisation is regarded as *farḍ kifāyah* (collective obligation). The acquisition of this sphere of knowledge should be dictated by societal needs (Al-Ghazālī, 1996).

Educational activities are opportunities to engage in *ᶜibādah* (worship), which gives divine meaning to life. The spiritual utilities of *ᶜibādah* evoke motivations to be perpetually involved in teaching and learning. The incentives attached to educating and getting educated propel the individual to excel in education. One of such impetus for engaging in the search for knowledge is demonstrated in the prophetic statement "He who treads the path in search of knowledge, Allah will make that path leading to Paradise easy for him" (Saḥīḥ Muslim, Hadith 1245).

Pedagogical principles enunciated in the Qur'ān are directed towards producing spiritually profound and intellectually sound human beings. The educated elite produced through the Qur'ānic paradigm should be able to impact the immediate generation and future generations of mankind. Adequate teacher preparation should precede practice. Allah adequately prepares His prophets for the task of guiding people in a way that the goal of prophethood will be accomplished. Allah prepared Adam for the task of teaching before asking him to demonstrate his knowledge to the angels (Qur'ān2:31-33). All the prophets of Allah were given various facilities to enable them attain *Itmāmul-Ḥujjah* (Absolute Proof). These include *ḥukm* (wisdom) and *ᶜilm* (knowledge), *muᶜjizāt* (miracles) and other strategies of effective delivery. Thus, the Qur'ān makes the principle of planning and preparing for teaching and learning activities a precondition for the success of instruction.

The Qur'ānic framework for the implementation of the planned tasks begins with the principle of building durable foundations of learning. The instructional environment must be conducive and relevant to the context of learning. Muhammad's (SAW) first experience of revelation involving a one-to-one interaction with Jibrīl (AS), his teacher took place at Cave *Hirā'* free from distraction. Another dimension of this first instruction which is akin to the Adamic model of teacher education is that the initial concept introduced to the learner is simple and factual. The Adamic learning experience begins with object identification through definition. The Qur'ān reports: "He taught Adam the names of things" (Qur'ān 2:31). Training in conceptual thinking is deduced from the Adamic learning experience to teach factual definition of phenomena. (Khan, 2009: 6). In the first encounter of Muḥammad (SAW) with Jibrīl (AS) the learning task involved the assimilation of only five short verses. This first revelation also prepared the foundation for subsequent instructional encounters that were to span twenty-three years. The method used involved memorisation in consideration of the unlettered status of the learner.

Consideration of the diversity of learners' cognitive abilities, level of mental alertness and readiness, socio-economic backgrounds, cultural affiliations, emotional status and so on in determining the modicum of content and how to teach it is another principle of pedagogy in the Qur'ān. "Not all of them are alike" in Qur'ān 3:113 is an apt reference to this principle. A more categorical declaration reads: "Say, 'Are those who know equal to those who do not know?' Only they will remember [who are] people of understanding" (Qur'ān 39:9). It is vital that the learner is not encumbered with learning tasks greater than what his latent capacities can allow.

A frequently emphasized principle of pedagogy in the Qur'ān is the development of the skill of *tadabbur or tafakkur* (contemplation) in the learner. Reflective thinking is a basic tool for discovering new knowledge (Abdul-Haq, 2002). The Qur'ān challenges its readers to study its content deeply with a view of accessing the various dimensions of its application. It states: "[This is] a blessed Book which We have revealed to you, [O Muḥammad], that they might reflect upon its verses and that those of understanding would be reminded (Qur'ān 38: 29). The learner needs to reflect on what is taught with a view of relating it with revealed knowledge and the wisdom in creation. This exercise enables him to develop new ideas and vistas of development. A cognate Qur'ānic principle here is making the learner a discerning or guided generalist. The learner ought to be exposed to as many subject areas as possible so that his learning experience does not become exclusionary. This approach enables the learner to appreciate the interrelated nature of various disciplines and the need to reach out to dimensions of knowledge and its application to various spheres of life instead of limiting himself to the cocoon of his area of specialisation. The Qur'ān typifies this encyclopaedic approach to scholarship when it succinctly submits "Nothing have We omitted in the Book" (Qur'ān 6:38).

Teaching Approaches

The quality of content is as important as the method of its delivery. The Qur'ān not only establishes the integrated nature of knowledge but also the modalities of its presentation to its recipients. This brings to the fore the issue of the utilities of methods of teaching used in the Qur'ān. The Qur'ān is basically a divine scripture and not a textbook on any discipline as Bidmos

(2010) has rightly observed. However, the Qur'ān makes allusions to all disciplines; the method of delivering instruction is not an exemption. A method should make learning more involving and exploratory. When the teacher is equipped with numerous skills and strategies, teaching is seamless, resourceful and enjoyable. The diversity of approaches affords the teacher the opportunity of deploying a combination of methods to teach a concept. The astute educator discovers in the Qur'ān vast methodology resources beyond the traditional ''chalk and talk'' method.

In training teachers who are expected to implement a *Tawḥīd*-based curriculum, it is important that training in Qur'ānic pedagogies forms a major component of their preparation. They should be conversant with and apply principles extracted from the Qur'ān. The wide-ranging nature of these teaching approaches in the Qur'ān imposes limiting discussion on them to few illustrations. Major methods of teaching in the Qur'ān include discussion, lecture, questioning, demonstration, rote learning/memorization, storytelling, experimentation and so on.

The Qur'ān leveraged on the advantages of the discussion method in which the teacher is able to obtain immediate feedback arising from issues raised so as to decide on the next stage of instruction. The level of involvement of the parties is high while the teacher plays the role of a facilitator while the learner contributes to building concepts. The Qur'ān typifies this type of method in the didactic sessions between Shuᶜayb (AS) and the `Ad (Qur'ān 11: 84-91). He delivered the divine message through an informed engagement with his people providing information and exposition where necessary. Based on request, he clarified the divine message as necessary.

Practical demonstration as used in the Qur'ān involves skill acquisition techniques in cases where this method is most suitable. This teaching method is ubiquitous in the Qur'ān and indeed pervades the Islamic education tradition. For instance, Musa (AS) demonstrated to his people the utilities of his staff showing them in the process the superiority of divine power. He succeeded in teaching the virtue of obedience to divine authority and the grave consequences of disobedience. He dictated the time and place of instruction and also ensured that the demonstration was witnessed by a large population of learners given the ambience of the learning environment. The demonstration was clear while the voice level was audible. In the end, he succeeded in convincing the multitude through various aspects of his demonstration.

The Qur'ān combined the trio of educational excursion, problem-solving and lecture methods in a single teaching-learning encounter. This is typically represented by Prophet Musa's educational trip with his teacher, Khidr. Musa (AS) accessed new forms of knowledge as well as the ethics of patience, obedience, diligence and respect for the teacher (Qur'ān 18:82-60).

Teaching through historical anecdotes is widely used in the Qur'ān. This method aids knowledge recall and allows for presenting diversified content in a single learning encounter. It is also filled with imagery that facilitates understanding and knowledge recall. Since the stories are based on actual facts and events, the objective of entertaining the learner gives way to value orientation. An entire *sūrah* is named Al-Qaṣaṣ (Stories). The Qur'ān related the stories of tribes (e.g. ᶜĀd and Thamūd); personalities such as Firᶜawn, Ashābul-Kahf, Bilqīs, Maryam and twenty- five (25) prophets among others. In

each case, vital messages are incorporated into factual stories. The life of Yūsuf (AS) to which Chapter 12 of the Qur'ān is dedicated treats various vicissitudes of life and the credible ways of addressing them.

The Qur'ān alludes to co-operative learning through the prescription of a wide range of forms of worship especially those that are performed congregationally. Typical examples include *ṣalāt*, *hajj* and *jihād*. Numerous supplications in the Qur'ān make use of the first plural noun to underscore the importance of the collectivization of instructions. A common illustration is found in the frequently recited verses "It is you we worship and it is from you we seek assistance. Guide us to the right path". (Qur'ān 1:5-6).

Rote-learning which is much condemned in contemporary methods should be strategically retained for the purpose of memorising texts of the Qur'ān, the Hadith and mastery of terminologies and taxonomies. This not only contributes to the priority of preserving the Qur'ānic text as enshrined in Qur'ān15:9but enhances effectiveness of *ṣalat*. Questioning as a method in Qur'ānic pedagogy is a two-way affair involving teacher's use of questions to present concepts with active learner participation. The learner is engaged in intensive mental activity which in the end aids knowledge recall. The flip side of the utility of this approach is the creation of ample opportunities for the learner to clarify issues at different stages of lesson delivery. Moreover, questioning is an important evaluation tool. All the typologies of questioning are masterfully used in the Qur'ān and Hadith. Typical illustrations are found in Qur'ān and Hadith Two of an-Nawawī.

The use of Information and Communication Technology (ICT) and indeed all beneficial scientific inventions are encouraged and should in fact be used. The Qur'ān gives an open licence for the discovery, production and use of the products of scientific enquiry. The Qur'ān states its position in form of a challenge which reads:

> O company of *jinn* and mankind, if you are able to pass beyond the regions of the heavens and the earth, then pass. You will not pass except by authority [from Allāh].
>
> (Qur'ān 55:33).

Conclusion

Discussion in this paper has revealed in a rather skeletal way- given the constraints of space- the vast pedagogical resources of the Qur'ān as further expounded in the *Sunnah* and other sources of the *Shar ᶜᶜah.*As opposed to transactional teaching which merely involves the transmission of knowledge from teacher to student, transformational teaching, in neo-liberal education emphasizes inquiry, critical thinking, and the development of higher-order thinking and communication skills. All of these are geared towards achieving economic viability in the future. For this reason, students are made to learn for the examination success, a syndrome which has resulted in the marketization of schooling and the commoditisation of education. Thus we find that standards, testing and efficiency of the school system to meet the employment needs of the recipients are overemphasized.

The Qur'ānic Paradigm of teaching, on the other hand, aims at transforming the heart. According to Memon (2005), "this brings out one's humanity through the enactment of an Adamic education". We must acknowledge that, there is an increasing awareness among Muslims to provide educational services with Islam as an integral ingredient. It is also true that Muslim schools are ubiquitous. In Southwest Nigeria, the proliferation of Muslim schools has led to an intolerable mushrooming of Muslim Schools with inadequate Islamic content in their programmes. The environment is no doubt Islamic while an attempt is to ingrain into the curriculum elements of Islamic culture. At least, both Arabic and Islamic Studies are offered as school subjects. However, the Muslim schools are still largely mainstreamed into the objective of achieving success in the market economy. Education should emphasize not only the quality of knowledge, skills and values students are made to acquire but also how to put all of these into practice. The first step in this direction is to eliminate the dichotomy between secular and religious education to create a *Tawhīdī* context in our education. This unified context produces a synergy between what is considered essentially secular and that considered to be purely spiritual.

References

Abdul-Haq, M. (2002). *Educational philosophy of the Holy Qur'ān*. New Delhi: Adam Publishers and Distributors.

Al-Ghazali, The Book of Knowledge transl. of *Kitāb Ihya' ᶜUlūmud-Din* by N.A Faris (Lahore: S.M. Ashraf 1966). Retrieved fromhttp://www.ghazali.org/works/bk1-sec-1.htm on 2/5/14.

Al-Ghazālī, M. H. (2009). *An exposition of the heart*: translated by Maulana Muhammad Muhammady, 1st edition, South Africa: Lebanon printers: 7-15.

Cowan, J.M (1999). *The Hans Wehr Dictionary of Modern Literary Arabic* (India: Modern Language Services) p.753.

Hassan, M. K. (2010), A return to the Qur'ānic paradigm of development and integrated knowledge: The *Ulu al-Albāb* model. Intellectual Discourse, Vol. 18, No 2, 183-210.

Memon, N. (2016). The Pedagogical Divide: Toward an Islamic Pedagogy

Qamhawi, M.S. (1980). *Al-Burhān for tajwīdil- Qur'ān*. Cairo: Maktabah Jumuhuriyyah Miṣr.

Slavich, G.M. & Zimbardo, P.G. (2012). Transformational Teaching: Theoretical Underpinnings, Basic Principles and Core Methods, Educational Psychology Review. DOI 101007/S10648-012-99-6.

CHAPTER THREE

BACK TO THE BASIS: TECHNOLOGICAL EDUCATION

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Introduction

To be meaningful and beneficial, knowledge acquired through formal or informal education should have the two complimentary components of spiritual and material dimensions. The spiritual side points to the recognition of the Creator Who is not only the Source of all knowledge but also controls the workings and functionality of all aspects of life on earth and those of other parts of the universe. It has been observed that tending towards the extreme right of overemphasising spirituality at the expense of the material or going to the extreme left of neglecting the spiritual totally or partially in favour of the material has led the world and humanity to the current state of confusion with very disturbing social problems. It is very unfortunate that the whole world is still lost in our illusion of a civilization that is full of social and moral ills. Civilization is expected to be a combination of scientific with full morally justified social developments meant to move humanity forward. The current system of education involving the secular orientation of the humanities and the social and basic sciences encourages just the development of lifestyles, equipment and machineries through research and educational developments without recognising the role of the Creator.

The ways and means to achieve development in the Muslim world requires advancements in science and technology. This is not just the desire of individuals or groups of people; rather, it is the dictate of Islam, which calls upon Muslims to pursue knowledge in the broadest sense of the word. Prophet Muhammad (pbuh) said, "Seeking knowledge is an obligation upon every Muslim" [*Narrated by Ibn Majah*]. He also said, "For one who treads a path to knowledge, Allah will make easy the path to Paradise" [*Narrated by Muslim*]. The Qur'ān also contains numerous references to knowledge and its importance which challenges human beings, such as "Indeed, in the creation of the heavens and the earth and the alternation of night and day are signs for those of understanding."[3:190]

Science and Spirituality

Religion as opined by Tanveer (2015) deals with questions of 'ultimate and final values.' These values give meaning to our existence in which we are rooted. Values are not abstract but are concretely expressed in human culture. However, for Koshul, Max Weber (d. 1920) provided important insights into the nature, function and scope of science. According to him, "for Weber objective scientific knowledge is neither a copy nor a reproduction of empirical reality… rather [it is] a conceptual ordering of empirical reality in a valid manner."(Koshul, 2005, 102). Logic establishes the valid manner. This definition implies that science is abstraction or intellectualization of physical reality in the natural sciences, and cultural reality in the social sciences. It is based on observation, collection of quantitative data, analysis of such data, derivation of conclusions from the data, and repeatable verification of such conclusions through quantitative means by other observers.

Science and Technology education and development are concerned with knowledge gained through observation and applied for the benefit of humanity. This may involve the development of processes, devices and equipment for carrying out activities or for achieving or facilitating human endeavours. With the two pointers, it is obvious that observed phenomena which humans normally document and utilise for operations and other developmental activities have been in existence before humans. Their existence must have emanated from a source, to which the patterns, the laws, rules and the trends which they follow and which their eventual behaviour found useful, must be traced. The combination of these, i.e. the origin and the activities themselves, must, in reality, not be separated during the course of studying them. There is need therefore to always go back to the basis in all spheres of knowledge acquisition through the injection of the missing link into the existing system. Through such combination of knowledge gained through observation and the in-dept knowledge of the origin of the objects being studied, integrated education in Science and Technology is achieved and the quality of such education is enhanced substantially.

There are the extreme-right proponents of mainly spiritual education, whose stance is based on an erroneous understanding of the very source of spiritual education. In the past, such people dismissed science and technology as a way of probing into God's power. And in our time, they are still found in certain quarters. The empires that killed scientists for propounding theories

believed to be against religious beliefs are examples of such a wrong understanding of education. That group is succeeded by those, in our time, who discourage the acquisition of mundane knowledge.

On the far left is the circle of scientists and technologists who attribute the very fact of existence and of behaviour to nature; they are silent about what this nature really is. Faced with relevant questions, science and technology students have always attributed everything to nature as if things came into existence merely by accident. How that accident itself, which has no origin, happened is yet to be fully explained; it has always been taken for granted.

Those on the extreme right have also created confusion by insisting that students should not ask about the source of existence or about how the patterns of behaviour came about; they should just believe the power behind these phenomena is so mighty that His creations need not be explored. Meanwhile, the popular causative theory in philosophical sciences also stated that one thing led to another and that the universe was actually caused by the big bang. The question should then be: "What caused the big bang"?. Often times the final answer simply is "Nature"!. The next questions are "What caused nature"? "What caused the first thing that led to the second?" There is no doubt about the fact that there must be a Creator whose origin is not known because He is The First Cause.

When studied properly, religion points to the permission given to humans, by the mighty Creator, to explore His creation for their benefit but with a caution. The Qur'ān in Chapter 55 verse 33 states:

> يمعشر الجن والإنس إن استطعتم أن تنفذوا من أقطار السموت والأرض فانفذوا لا تنفذون إلا بسلطن
>
> *O tribes of Jinn and humans, if you can penetrate the outer limits of the heavens and the earth, then go ahead and penetrate. You will not penetrate* ***without authority****.*

Appreciating the Cause of the Causes

It is always good to respect and appreciate the source which is the authority mentioned in the verse, and not to arrogate all successes in technological knowledge or discovery to the so called 'human inventor or discoverer' or intellect. During the course of acquiring knowledge, teachers of science should adopt the integrated approach of balancing the two dissenting views

and proofing to students the need to appreciate the unseen Source and the unseen theories, as the effects of both can be felt. While the existence of the Creator of the laws being used in science cannot be seen, so also are the laws discovered cannot be seen, but both can be proven to be existing.

The first case is that of the three states of matter (Solid, liquid and gas). It is obvious from the point of view of strength that solid is the strongest and can be felt and seen. This also applies to fluid which is the next in terms of strength: though it can be seen and felt, it cannot be held like solid but in a container like the gaseous matter that may only be felt but not necessarily seen nor held. However, buildings, trees and other solid structures would be destroyed by a heavy windstorm while a ship (a huge solid) will be wrecked and destroyed completely by seastorm (disturbed liquid) triggered by windstorm (gas). The big question that requires going back to the basis is; why is the weakest the destroyer of the strongest?

Another case in question is the space shuttle developed for mission to the space in January 1986 that was named 'The Challenger'. The big question is, who was being challenged: fellow humans who were competing in technological development under the then cold war or the actual Creator of all the rules and laws governing the functionality of all the developments referred to as Creator by the rightists? The good intention in the name (Challenger) can actually be deduced from President Ronal Reagan Speech which states:

> *Give me a challenge, and I'll meet it with joy. They had a hunger to explore the universe and discover its truths.*

The challenger unfortunately exploded and scattered into unrecoverable pieces within 73 seconds of take-off leading to the death of its seven crew members under the watchful eyes of a number of very important personalities, other spectators and the whole world as it was broadcast live by the American National Television Network. The disaster was attributed to the failure, at lift-off, of an O-ring seal in its right Solid Rocket Booster(SRB) as a result of the low temperature on the day of launching. Therefore, we will be able to penetrate and discover the truth only with the authority of the original Source. The lives lost, especially given the knowledge they had acquired which ended with their demise, are highly regretted and they and their families are in no way been slighted. It should be noted that several other successful missions were completed before and after this incident and

quite a lot of truths have been discovered and ample knowledge gained through these space trips. All of this was possible only with the permission of Allah, for those of us who believe in the inevitability of the divine authorization. What an integrated approach to education!

Relating the incident to spirituality, it is pertinent to note that it was reported that the warnings from engineers about the dangers of launching, posed by the low temperatures of that morning were disregarded, hence the superiority of the Source/the Origin Who stated that "the knowledge of the hour is only known to Him…." (Qur'ān 31:34; 67:26). Meanwhile the *Challenger* disaster has been used as a case study in many discussions of engineering safety and workplace ethics. We therefore, as scientists, talk of safety and ethics because we only discovered and applied the discoveries for our benefit; we did not create, hence the care and caution that have to be taken. Furthermore, the launch date had been changed more than six times due to one problem or the other.

Back to God

After the disaster, PresidentRonald Reagangave a speech that was considered as one of the most significant speeches of the 20th century and finished with the following statement:

> *We will never forget them, nor the last time we saw them, this morning, as they prepared for their journey and waved goodbye and 'slipped the surly bonds of Earth' to 'touch the face of **God***

Are We Alone?

Another important thing to note in that verse of the Qur'ān, 55:33, is the mention of the Jinns who are another set of beings with intellect amongst the living things created into this universe. This is also food for thought for humans, who need to note that we are not the only beings inhabiting this world, hence the need to go back to the basis. The discovery and sightings of Unidentified Flying Objects (UFO) as well as the Bermuda triangle where ships and aircrafts have disappeared with no clue till date, are believed by some scientists to exist but yet unravelled. However, many scientists disproved these theories. The Bermuda Triangle, also known as the Devil's Triangle, is a loosely defined region in the western part of the North Atlantic Ocean, where

a number of aircrafts and ships are said to have disappeared under mysterious circumstances. Both have been proven and disproved, but in every rumour there are usually some elements of truth.

One of those disproving the triangle (McDonell, 1973) attributed the cause of disappearance of an aircraft to compass malfunctioning which normally happens when a plane is flying through a magnetic storm. To support his claim, scientists have this to say:

> *To someone unprepared to take on the immense work of scientific research, supernatural phenomenon makes for an easy answer. But, it is amazing how many supernatural things become natural when scientifically investigated.*

The reality, say many, is far more prosaic. They argue that a sometimes ***treacherous Mother Nature***, human error, shoddy craftsmanship or design, and just plain **bad luck** can explain the many disappearances. ***The treacherous Mother Nature and Bad luck!!*** What a contradiction**.** However, McDonell was also quick to add to the confusion and contradiction, that actually:

> *man's knowledge of magnetism is limited. We know how to live with it and escape it by going into space, but, we really don't know what exactly it is!*

Therefore, science can explain the causes but the cause of the causes is never explained; hence, we should go back to the origin. There have not been agreements by scientists on the real causes or whether the disappearances were not true or had been caused by machinations of enormous sea monsters, giant squid, or extra-terrestrials, alien abductions, natural forces or other beings. This shows that going back to the basis, i.e. combining knowledge (integrated religious and mundane) with its source, is very important for a deep-rooted understanding. It is therefore important to note that Man has been created to appreciate creation and to probe into it (as a scientist) with a view to making it beneficial and yet appreciate the wonders of discoveries. (McDonell, Michael. "Lost Patrol." *Naval Aviation News* (Jun. 1973): 8-16.). Teachers of science and Technology will therefore have to note phenomena like those listed above and link these occurrences and activities to the origin of creation in their teachings.

Omni Directional Antenna and Omnipresent God

In physics and communication engineering, the omnidirectional antenna is a device that radiates or receives signals equally well in all directions. It is a device that is commonly used in transmission and receiving of signals in telecommunication. It is also called the "non-directional" antenna because it does not favour any particular direction. When this phenomenon was being taught in a class, one of the students raised a question as to the similarity of this with one of the characteristics of God i.e. omnipresent and omnipotent, which of course the student was aware the teacher did not believe in, as the teacher was a free thinker. The whole episode degenerated into a long discussion. The student challenged the teacher on why he would not believe that God is omnipresent and omnipotent but would accept the concept of a physical object developed from materials created by God having such capability to communicate in all directions. The student was of the belief that the teacher would have done better if he had accepted and had used the example to justify what he was teaching. He noted that it would have resulted in a better understanding. He felt that accepting that the example of all the nature of God and the natural things around us are signs for us on how best to leave our life and invent things for human benefit (see Quran 2: 164).

إن فى خلق السموت والأرض واختلف اليل والنهار والفلك التى تجرى فى البحر بما
ينفع الناس وما أنزل اللّه من السماء من ماء فأحيا به الأرض بعد موتها وبث فيها من
كل دابة وتصريف الريح والسحاب المسخر بين السماء والأرض لءايت لقوم يعقلون

Surely, in the creation of heavens and Earth, and the differences between night and day, and the ships that sail in the sea for the benefit of mankind, and what God has sent down of water from the sky so He brings the Earth back to life after it had died, and the moving creatures of all kinds that He has scattered therein, and in the veering of winds and clouds which are held between the sky and the earth, are indeed signs for people of understanding.

It is worth noting that all engineering inventions mimic or are fashioned after natural objects e.g. vehicles against legged animals (wheel) with the head carrying the brain (engine) and the driver as the heart (in control); the train is similar to the centipede and millipede, helicopter after the dragon fly which is capable of flying, stationary in space and can drop fast to lick water; aeroplanes mimicking all the characteristics of a bird; the computer

motherboard looking like a city with the components similar to structures having similar functionality in a city.
Indeed, these are signs for us to ponder upon. Learners if given several similar examples and similitudes during lessons will not only understand and be better in their day to day endeavours but will also appreciate God hence live a complete life.

The Success of Integrated Education in the Past

Arif Zamhari noted that the golden age of Islamic civilization during the 8th to 12th centuries was established by integrating both religious sciences and natural or worldly sciences in the light of Islam. As we can read from the history of Muslim civilization, both religious sciences (*al-ᶜUlūm an-Naqliyah*) and natural sciences (*al-ᶜUlūm al-ᶜAqliyah*) were part of Islamic education. In other words, religious sciences and natural sciences had similar positions within Islamic education centres. No one particular science had supremacy over another. Therefore, religious and natural sciences contributed equally to the golden period of Islamic civilization.

CONCLUSIONS

From the foregoing it can be concluded that as sciences have been recording discoveries and successes attributed to knowledge gained through the observation of rules and laws governing nature, there are observations that are yet to be fully understood. An appreciation and recognition of the origin of existence will go a long way in facilitating global peace and rapid development. This will be the case if the discoveries are attributed to the basic Source of knowledge, the divine, as that will facilitate the right understanding of things already discovered as well as future discoveries. This is because the complimentary recognition of the spiritual and the material will result in adequate attention being given to the spiritual dimensions and values of humans and materials and will prevent further destructive developments. It seems that, historically, whenever man was unable to explain the nature of the world around him, the problems he faced were said to be caused by gods, demons, monsters and more recently, extra-terrestrial invaders, whereas, the right thing to do was going back to the basis, the Creator for the right answer. Linking scientific knowledge back to the Creator will remove confusion on the part of students of science and technology and will put man's mind at rest, and that will facilitate the right understanding of the things they deal with.

Finally, from the Muslim's view point, seldom has the debate over reconciling Islam and science sufficiently addressed the Qur'ān itself and the claims made for its infallibility. The Qur'ān states that God is the Creator Who brought into being all things into existence including all material objects, hence all seekers of knowledge and those transferring knowledge through education need to appreciate this truth. Nature was His creation and His will is responsible for the occurrence of all natural events including earthquakes, for example. There is, therefore, no doubt about the fact that, in integrated education, the origin of things goes back to Allah and not to nature, contrary to the position held in science. He is the Creator of the forces, and the laws of sciences are His creation. That is the reason why most of these laws are yet to be understood even though some are being utilised without being well understood.

References

Aaron Segal (1996). “Why Does the Muslim World Lag in Science?” *Middle East Quarterly,* Vol. 3 No 2: 61 – 70.

Bidmos M. A. (2014), “Islamization of knowledge: The title question and implementation strategy”in *Restoring Spirituality and Morality to Education.* Lagos: IIIT South West Nigeria, University of Lagos Press.

Cochran-Smith, Marilyn (2003). "Bermuda Triangle: dichotomy, mythology, and amnesia". *Journal of Teacher Education,* 54 (4): 275..

Hoodbhoy, Islam and Science: Religious Orthodoxy and the Battle for Rationality (London: Zed, 1991), pp. 140-54.)

http://en.wikipedia.org/wiki/Unidentified_flying_object

http://www.history.navy.mil/research/library/online-reading-room/title-list-alphabetically/e/exorcizing-the-devils-triangle.html.

McDonell, Michael (1973) "Lost Patrol." *Naval Aviation News* (Jun. 1973): 8-16.

Musa, I. and Raji, A. O. (2014). “Assessing the Contemporary Education System in the Context of Integrated System”. *In Restoring Spirituality and Morality to Education.* Lagos: IIIT South West Nigeria, University of Lagos Press.

Ronald Reagan Presidential Library, Address to the nation on the *Challenger* disaster, Jan 28, 1986.http://www.reagan.utexas.edu/archives/speeches/1986/12886b.htm. Accessed April 19, 2015

Tanveer Azmat (2015) “Relational Epistemology for Science and Religion: Reflection for Alternate Sociologies” in The Middle East and North Africa. *Islamic Perspective*, Vol. 13, 15-29.

Zamhari Arif*, The Importance of Science and Technology Education in the Muslim world: views from Indonesia.. A report of Pak Institute for Peace Studies Program on Promotion of Peace and Religious Harmony. http://www.san-pips.com/download.php?f=180.pdf. Accessed 23 02 2015.*

CHAPTER FOUR
INTEGRATED KNOWLEDGE: A FRAMEWORK FOR TEACHING SCIENCE

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PREAMBLE

Education in the Western countries of the world has been found to be somewhat morally bankrupt because it leads to taking decisions without reference to divine guidance at either individual or corporate levels. The ideologies and concepts that are eventually produced bring up side-effects that are capable of ruining whatever benefits that might have been presumed to be initially gained. Since this education from the West is devoid of spirituality, it makes youths including Muslims to be indifferent to the Islamic ethics and values. The eventual outcome is myriads of corrupt practices in all ramifications. To stem these cancerous situations, there is dire need for a pragmatic step to integrate the knowledge of God in our teachings generally and for the focus of this paper on the teaching of Science in schools.

INTRODUCTION

What is Science?

The word '**Science**' is from the Latin word '**Scientia**' meaning '**knowledge**' or to know. Saton George in the Encyclopaedia Americana defines Science as "positive knowledge". The Encyclopaedia Britannica calls it any intellectual activity concerned with the physical world and entailing unbiased observations and systematic experimentation. The Encyclopaedia of Science defines it as "an organized body of knowledge and opinions which is systematically supported by formal proofs or by observational evidence".

Science, whether natural (Biology, Physics, Chemistry, Astronomy); Social (Economics, Psychology) or fictional (space travel), is the area of knowledge based on the observations and testing of facts. It includes the working into an ordered system, act as a base for new knowledge and a guide to ways of getting it. The Arabic word for Science is called " *'Ulūm* " which also means 'knowledge'. We can therefore summarize the whole idea of science as the casting of knowledge into empirical data and a mathematical exactitude.

What is Islam?

The religion **Islam** takes its name from the Arabic root word **'Salima'** which literally means to **'offer peace'** and 'to be pure'. The word itself is the noun derived from the verb ***Aslama,*** which means "he submitted", implying being **at peace** with the one to whom one has submitted. Islam, therefore, means submission to the Will of Allah. This submission connotes peace within a man's soul, peace between neighbours, among compatriots, among communities, states, nations and continents. It should also radiate peace on earth and peace in the heavens.

Islam is based on five pillars: *Īmān*, *Salāt*, *Zakāt*, *Sawm* and *Hajj*. It is named in the Holy Qur'ān and described as a favour and a privilege from Allah to those that accept it (Qur'ān, 49:17). It brings the light of Allah into their hearts and they have indeed received guidance.

Islam is a complete way of life and the only true religion from Allah, delivered by all of His previous prophets from Adam to Jesus (pbut) and brought to completion through Muhammad (pbuh) (Qur'ān 5:3). It teaches us how we are required to live in the world, and that we should accept the *Sharīᶜah* as code of conduct in all our affairs. We are required to enter into Islam wholeheartedly; to serve Allah truly and sincerely.

We can only serve Allah in truth if we are knowledgeable; i.e, if we know and appreciate His signs that are well abound around us. The first direct revelation to the Prophet (pbuh) is found in the first five verses of *Sūratu l-ᶜAlaq* (Q 95:1-5). It has to do with the acquisition of knowledge: 'read', 'rehearse', 'proclaim', and 'recite'. Furthermore, the statement, *'allama,* meaning *He* (*Allah) taught ...,* has to do with giving knowledge, while the reference to *al-Qalam*, the pen, is related mystically, according to translators of the Qur'ān, to involvement in teaching, reading, writing books, doing research in all endeavors of life including Science. It is this understanding that

fired the enthusiasm of the early Muslims to make discoveries in Science and other aspects of life.

Islam, Science and Knowledge.

It should be appreciated at this juncture, the synonymous nature of **ISLAM** and **SCIENCE**, as both are rooted in **KNOWLEDGE**. Knowledge, therefore should be appreciated as a holistic system. Islam has a characteristic approach to education, an approach that is consistent with the belief that Allah is the Creator and Sustainer of all things and therefore, the ultimate source of the knowledge of all things.

However, the current and predominant approach to knowledge worldwide championed by the West is enshrined in secularism and a materialistic approach to things, and, by its philosophy, erroneously excludes the divine from the realm of education. This ideology of the West was enthroned consciously and unconsciously in the Muslim world during colonization and, subsequently, the globalization of the western world-view on education. The secular approach to teaching and learning, particularly in science education, has, for a long time now, greatly influenced the Muslims and has weakened their consciousness of the Islamic holistic approach to knowledge.

This and more of such setbacks were critically looked into by some Muslim intellectuals, and that emphasized the need to respond to the challenge by striving to revive the educational system that is proper for Muslims.

Western Education

It is certainly a statement of fact that the western approach to education disagrees with the teachings of Islam in respect of the following concepts and ideals:

1. The strong link between education and divine authority at all times;
2. The reality of the hereafter;
3. Accountability to Allah;

4. The promise of rich rewards in the hereafter as incentive for good deeds and persistent warning of severe punishment in the life to come as a determinant from evil deeds.

In fact, the contemporary western education challenges those teachings of Islam. The crux of the influence of the western concept on Education is that education has become devoid of morality. The resultant effect is that education has failed to impact development and has come short of achieving the fundamental national objective of education in Nigeria: to guarantee a balanced education with a strong spiritual and moral basis.

Balanced Education

The education system desired by God and the early Muslims is a balanced one. In a balanced system of education, equal importance is given to both spiritual and emotional development on the one hand and physical and intellectual development on the other. What this means is that the respective parts of the brain are equally developed. In a secular education, it is only the side of the brain responsible for physical and intellectual development that receives attention at the expense of the side that determines spiritual and emotional development, which is virtually neglected (Noibi, 2014).

It is this skewed growth and development of one side of the brain at the expense of the other that brings forth the malady of modern education and the modern global civilization that grew from it. This lopsidedness has created a serious imbalance in education, as it leaves a vital aspect of the individual undeveloped. This poses a serious challenge to any Muslim who understands and is conscious of what it means to be a Muslim. Consequently, it poses an even greater challenge to Muslim intellectuals especially those concerned with education of Muslims.

To correct the lopsidedness and skewed growth with the intention to achieving the required balance in education, the “missing link” must be identified and consequently incorporated into the educational system for Muslims in Nigeria.

The “missing link” is the consciousness of Allah in teaching and in the writing of texts and books in the various subject areas, but particularly science. That lack of the required consciousness of Allah is reflected in the choice of examples and case studies on science. The panacea to this quagmire is to inject the “missing link” by way of integration.

Integration Approach

This integration approach means a systematic method of injecting the Islamic world-view in the current education system (Bidmos, 2014). The specific “missing link” is *Tawhīd.* This *tawhīd*–based approach to concepts, theories, laws, systems, mechanisms, and processes in all science teachings will definitely make man relate to his Creator in a manner that positively impacts on his behavioral pattern. He will seek and attain comfort without undesirable side effects.

The injection of this “missing link” in our educational system must be holistic. This requires that Muslim intellectuals acquire a sound knowledge of the rudiments of Islam and it’s teaching with a view to applying them in disseminating knowledge at all levels of education. The integration exercise is to be carried out in the school syllabi, textbooks and scheme of work. The Qur’ānic text and the *Sunnah* should be explored by the teacher/instructor in terms of what their sources say about the area of specialization being taught.

These extracts should be integrated in the lesson contents with a view to ensuring impact on the recipients of the knowledge. This can be achieved by ensuring that at the end of the lesson, students should be able to:

a. State the attitude of Islam to the concepts in question;
b. State the expectations of Islam on these concepts and the ideas being generated from them;
c. Itemise seeming dangers, both physical and spiritual inherent in the concept being taught;
d. Research works of Muslim scholars on the subject matter;

e. Incorporate insights from the Qur'ān and the *Sunnah* to produce a framework of action.

Justification for Integration

All realms of knowledge are in the search of truth. There is, therefore, **unity of truth between science and religion (Islam)**. The **truth in science** is through **experimentation** while that of **Islam is through faith**. The sources of knowledge are three: *Haqqul- Yaqīn*, which is knowledge through revelation – religion; *ᶜAynu Yaqīn* or knowledge through observation – Science; and *ᶜIlmul-Yaqīn,* is through reason, which is common to both.

The relationship between Islam and Science is one in which the Muslim acknowledges the superiority of Allah's knowledge in relation to that of man. Science is therefore secondary while Islam and, of course, knowledge about Allah is primary. Although science is subject to several variables and therefore imperfect, Allah is infallible and He has perfected Islam. Science and the research into it should be viewed as one of the signs of Allah because Islam regards science as a means and Allah as an end.

Several commentators have given inputs into the science–religion discourse. Permit me to quote some of them to further appreciate the consonance and complementary nature of the two as opposed to the perceived antagonism:

Ted Peters - "Science and Theology pursue **truth"**. "-Scientific knowledge should inform and sharpen theological truth/claims";

Albert Einstein – "Science without religion is lame and religion without science is blind";

- "**Science** is **language of fact** and **religion** is **language of value**";

- "Science ascertains "what is" but not what "should be"; religion deals only with evaluation of human thought and action";

Stephen Jay Gould – The net of science covers the empirical Universe; what it is made of (**fact)** and why does it work this way **(Theory).** The net of religion extends over questioning of moral reasoning and value;

- "**Science** gets the **age of rocks** and **religion** gets the **rock of ages**";

- "**Science** studies how **heavens go** and **religion** determines how **to go to heavens**";

-Science asks **'how'** and religion asks **'why';**

Paul Davies – Science offers a **super route to God** than Religion;

John Cobs (Jnr) – Science provides a means to learn more about God already known through religions;

- Science has demonstrated the ability to build cumulatively from generation to generation, expanding human knowledge and human ability to control nature through it. In the sphere of values, on the other hand, there seems to be no progress in understanding;

Nancy Murphy – Scientific and Religious languages are exactly the same type – they commensurate one another.

Islam takes objective stand on science and even encourages us to go into research. The glorious Qur'ān says, "*O ye Assembly of Jinns and Men, if it be ye can pass beyond the zones of the heavens and the earth, pass ye! Not without authority shall ye be able to pass* (ar-Raḥmān, 55:33). In yet another passage, He says, *Travel in land and sea and see how Allah originates creation…* (Ankabūt, 29:20);and in Al ᶜImrān, 3:191, Allah commands us to reflect on signs in universe and see that He did not create them in vain.

Science is to be one of the tools of appreciating the magnificence of Allah. For example, Science manufactures objects from rudiments or raw materials but Allah made things from nothing; He just says "Kun", "Be", and they come into being (Yā Sīn, 36:82). His creation is not dependent on instrument, means, parameters or conditions whatsoever. Existence waits on His will, or plan or intention. The moment He wills a thing, it becomes His Word or Command and the thing forthwith comes into existence.

Science is to be used to serve Allah, knowing full well that Allah is Supreme. The Muslim puts Science and materialism in the second place, pursues scientific researches with vigour while his religious practices run *pari-passu*. Neither disturbs the other. He sees Science as mere knowledge, which is power. At the same time, he sees Islam as wisdom with which he can exercise control over Science. Those who gain scientific knowledge without Islam end up as clever devils.

A Scientific mind with '*Taqwa'*, fear of Allah, is the one that will appreciate Allah and will serve Allah in truth. The Qur'ān is the book of **Allah's WORDS** while Science is the book of **Allah's WORKS**. Science practicalizes the WORK of Allah and Islam is the WORD of Allah.

Early Muslims appreciated this fact and pursued science to become renowned scientists in different fields. Since Islam came before Science and Allah is known through Islam, Science can only provide a means to learn more about Allah already known through Islam. Islam did not resist scientific advances and Science did not disrupt established beliefs of Islam and Islamic tradition; rather it provides a means for better understanding. As if to teach Muslims the pathways towards understanding His Benevolence and Might, Allah scattered scientific facts in the Qur'ān to be used to exemplify and concepts and assist us in the teaching of science towards achieving a balance in Education in all ramifications.

A compendium of the contribution of early Muslims to science and the several topics of science in the Qur'ān can be appreciated if you visit www.cis-ca.orgorwww.kalam.orgor, more generally, check the website of Center for Theology and Natural Sciences. Although the Greeks are acknowledged worldwide for their pioneering efforts in Science, this effort was very rudimentary. It was the Muslims who, after Greek civilization had crumbled, served as conduit pipes through which Science reached the West. Among those that should be mentioned at this juncture is Al-Dinawari (895)who is considered the founder of Arabic bot "Encyclopaedia Botannica". There are many more in areas of medicine, Optics, Maths, Mechanical Engineering, Zoology, Chemistry, Pharmacology, Pharmacognosy, Algebra, Logarithms, Trigonometry, Surgery, Paper Technology and many more. A spot check on some areas in the Qur'ān that could be used to corroborate areas of science during the teaching of those concepts revealed the following:

★ embryology -Nūh, 71:14 and a*l-Mu'minūn* 23: 12 – 15;

★ the Origin of the Universe:- Fuṣṣilat, 41:11 (Big-Bang theory); Anbiyā', 21:30;
★ cerebrum – ᶜAlaq, 96:15-16;
★ seas and rivers – ar-Raḥmān 55:19-20 (Estuarine system); al-Furqān, 25:53;
★ deep Seas and Internal waves (Oceanography) – an-Nur. 24:40;
★ clouds – an-Nūr, 24: 43;

- ★ source of milk in Cattle – an-Naḥl, 16:66;
- ★ creation of life from water – an-Nūr, 24:45;
- ★ orbital System – al-Anbiyā', – 21:33;
- ★ expansion on universe – adh-Dhāriyāt, 51:47;
- ★ gaseous Mass – al-Fuṣṣilat 41:11;
- ★ pork as a forbidden meat – al-Baqarah, 2:173; al-Mā'idah 5:4;
- ★ importance of Honey – an-Naḥl, 16:68-69;
- ★ end of the World - az-Zilzāl, 99:1-5; Al-Qāri'ah, 101:1-5; al-Fajr 89:21-22.

From the fore-going, it is clear that intellectuals in the fields of science and religion respectively must tear down the cultural barriers that have, for a long time, separated their respective disciplines; they must address the challenges together to be able to achieve the ultimate desire of building a bridge with the aim of presenting scientific facts with solid background of divine flavor to balance the education worldwide (Adekoya, 2004)

Conclusion

The ultimate goal of the idea of integration is to have a complete system of education by restoring the missing link into the current system of education, which is considered incomplete due to the ideology and methodology used. I therefore advocate that science provides necessary insights for understanding what we are and our place in the universe and that, since science by itself is hopelessly insufficient for this purpose, conscientious efforts must be employed by all stakeholders in the field to integrate the knowledge of Islam, the true religion, to the study of Science. The knowledge of Science alone has not provided, and will never be able to provide, a complete understanding of what humans are and our places in the universe. The incorporation and integration of the knowledge of religion will complement, and bring close to completion the understanding of the ideology of having balanced education capable of restoring spirituality and morality to education.

References

Adekoya, K.O. (2004). The Dialogue between Science and Theology. *The Nigerian Journal of Research and Review in Science*. **3** : 20 – 24.

Bidmos, M.A. (2014). "Islamization of Knowledge: The Title Question and Implementation Strategy" In: D. O. S. Noibi (ed.), *Restoring Spirituality and Morality to Education,* UNILAG Press, Akoka, Nigeria, 90pp.

Peters, T. (2004). *Science and Theology*: The New Consonance. Westview, Perseus Books Group, Oxford. 256pp.

Peters, T. (2004). The Origins Violence. *Theology and Science.***2** (1) :3 – 4

Noibi, D.O.S. (2014). "Restoring the Spirituality of Education: An Islamic Perspective" in D.O. S. Noibi (ed.), *Restoring Spirituality and morality to Education,* UNILAG Press. Akoka, Nigeria. 90pp.

THE QUR'ĀNIC APPROACH TO TEACHING THE DARWINIAN THEORY OF EVOLUTION

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Prelude:

> I have done a great deal of work on Darwin and can say with some assurance that Darwin also did not derive his theory from nature but rather superimposed a certain philosophical world view on nature and then spent twenty years trying to gather the facts to make it stick.
>
> There is no evidence for any of the basic tenets of Darwinian evolution. I don't believe that there ever was any evidence for it. It was a social force that took over the world in 1860, and I think it has been a disaster for science ever since.
>
> The people who work on the theme of the origin of life meet about two or three times a year and go around the world preaching their diction. They feel the need for doing this because their position is so insecure in terms of factual knowledge. (George Grinnell of McMaster University in *Intellectuals Speak Out About God,* edited by Roy Abraham Varghese (1984).

I found the three excerpts above as an appropriate preface to this study for what some scientists term the imposition of a certain philosophical world view on the global intellectualism. The bone of contention is that

secularization of knowledge which literally means expunging religion as well as God related matters from knowledge can really be traced to the theory of evolution by Charles Darwin who claimed, in his essay entitled "On the Origin of Species by Means of Natural Selection", that the creation of man was by accident, an event that took gradual process spanning some six million years. The evolutionists, as the disciples of Charles Darwin are fondly referred to in the science clime, vigorously promoted the evolution theory in a manner that completely shaped not only philosophy of education around the world but also influenced the thinking and operations of philosophers, social scientists and intellectuals generally.

The resultant secularization syndrome has been a disaster as asserted by George Grinnel in the above excerpts; a disaster as the key players on the global scene do not see the need to make reference to God in their activities. George Grinnel, like many other contributors to the book "Intellectuals Speak Out About God", informs that Charles Darwin must have been influenced by a certain prevalent world view in 1860 and that his evolution theory became so contagious as his disciples worked assiduously after him for its promotion, glorification and sustainability.

The effect of secularization as induced by the Darwinian evolution theory on philosophy of education is particularly profound as researches and all gamut of educational enterprises are conducted with absolute freedom. An educational enterprise devoid of God and God related matters inevitably culminated in production of Godless educated persons who invariably exhibit behavioural patterns that are both positive and negative. The positive aspect of the Godless education and, by extension, the Godless educated persons is the production of technological advancements in Medicine and Medical Sciences, Pharmacy, Engineering, Food Technology, Transportation, Communication, etc. On the negative side, we witness the following:

(a) Needless wars which are a replica of the Crusades that lasted for a quarter of millennium in the medieval period;
(b) Organized international terrorism which is currently tormenting and threatening human existence in different parts of the world and for

which trillions of dollars are expended by the sponsors of the ''project'';

(c) Can the ISIS be stronger than the US, Russian, French, and British forces combined? What is the source of ISIS's weapon supply and strength? Ordinarily, only one super power can crush ISIS in a couple of days. Certainly, there is an element of hypocrisy if many super powers combined could find ISIS unstoppable for years;

(d) hThe reckless shootings now rampant in the American schools, churches and public places, e.g. chokehold death in New York, Michael Brown's murder, etc. the situation that made the American President, Barack Obama shed tears as he unfolded his plan to control guns on Tuesday 5th of January, 2016.

(e) The child trafficking, slavery and the child prostitution business;

(f) About one million people in the world are stateless;

(g) Child abuse by the Catholic Bishops;

(h) Underdevelopment of Africa as a conspiracy between the African leaders and the West;

(i) Economic strangulation of the poor countries by the super nations;

The Crux of the Matter

The crux of the matter is twofold. First, the golden rule of CAUSE and EFFECT is clearly playing out of the evolution theory. The theory has come as a grand design to use scientific means to attack *Tawhīd* and subsequently give man false impression about himself that he has no creator who can be respected and relied upon for guidance and information needed for navigation on the planet on which man has found himself. The EFFECT of absolute freedom of man is the secularization syndrome and its attendant destructive tendencies as highlighted in a-i above.

Secondly, the theory is based on an unscientific foundation and proof. That man, after his transformation through stages of amoeba, orangutan and chimpanzees, the transformation that spanned six million years, still coexists with the stages that formed his nucleus defied scientific rule. A simple

illustration suffices; a slice of yam planted which eventually transformed to a new tuber of yam will not co-exist with the resultant tuber of yam the way amoeba, orangutan and chimpanzee co-exist with man. In other words, as man transformed from one stage to another, the previous stage that formed the nucleus of the new stage must have metamorphosed and it can no longer be visible. Again, if man metamorphosed from amoeba, orangutan and chimpanzees, where did these three objects emanate from? How did they come to existence? The three excerpts used above as a preface to this write-up, are drawn from the conclusion by scientists who, by scientific means, debunked the Darwinian evolution theory.

The Qur'ānic Account of Creation

Adam was created by the divine fiat from the clay as the source material (Man we did create from a quintessence of clay Q.23:12). Water also served as part of the source materials. Water is generally presented as the basic component of all living organisms (We made from water every living thing Q21:30). Modern science has proved that the protoplasm that constituted the original basis of living matters is made of about 85% of water. This is in addition to the fact that about 72% of our globe is covered with water.

As Adam was created from clay by divine fiat, his progenies are subsequently created from a different process which is sperm (Q.23: 12-14). The process of procreation as narrated in the Qur'ān 23: 12-14, in terms of the stages of conception up to delivery, tallies completely with the modern science perception which is an eloquent testimony that God the Creator is vividly and accurately describing what He created.

According to the Qur'ānic account of creation, therefore, man has a Creator and in the process of his creation, materials such as water, clay and sperm are involved. Furthermore, his creation has a purpose; to serve as *khalīfatullāh*, that is, Allah's vicegerent on earth (Q.2:30) and to worship his Creator (Q.51:56). After his sojourn on earth, he returns to give account of his activities on earth and so admitted into an everlasting joy or everlasting

shame depending on the balance sheet of his deeds on earth (Q.2: 281). The general creation of heaven and earth by God took six days (Q.7:54).

The Qur'ānic Notion of Transformation

Interestingly, the Qur'ān has a notion of continuous transformation of organisms within themselves instead of total emergence of an independent organism from another one such as the claimed emergence of man from other organisms (Orangutan, Chimpanzees). The Qur'ān informs about Allah's continuous creation: *wal anᶜām khalaqahālakum* (and the cattle He has created for you Q.16:5). The narration in this instance is about the benefits man derives from cattle (camel in particular) such as drinking its milk, eating its flesh, using its skin for bags, shoes and riding on it as a means of transport on long journeys, having the cattle as companions on journeys, etc. This episode is concluded by the expression *wa yakhluqu mālā taᶜlamūn* (He creates what you know not Q.16:8).

The narration that is contained in the four verses of Q16:5-8 begins with the verb *khalaqa* (past tense), that is, He created, it ends in *yakhluqu,* (present tense), that is, He creates. The simple and obvious meaning of this usage, as the act of creation was first expressed in *khalaqa* and later expressed in *yakhluqu,* is that the act of creation is a continuous process as far as Allah is concerned. For example, when camel was the main source of meal, a major means of transportation for some people and as a companion on journeys, a time will come when camel will cease to play such multiple dominant roles in the life of man such as listed above. Currently, man has a variety of stuff for food as well as a variety of transport facilities aside the camel. The variety of food stuff and transport facilities available to man today were unknown to man at the time of that revelation some fourteen centuries ago. For the sake of argument, one could rush to saying that after all, man is the manufacturer of various transport facilities such as trains, aircrafts, cars, cycles, ships, just as he is the brain behind the variety of delicacies and eatables that are available in modern restaurants. In all his adventures and creativity, man actually depends on his intellect. But who was (still is) responsible for the creation of human intellect? In other words, while man is excited by his creativity and production, the One that is really creative and productive is the provider of man's intellect and intelligence. So, what man creates is indeed

the creation of God the brain provider. As man produces different types of handsets ranging from the ordinary ones to Blackberry, Galaxy, iPad, computer memory, it must be recognized that he is indeed divinely guided through the brain which is the creation of God. Attributing the power of creation to human intellect and to man's ingenuity instead of God is the bone of contention between religion and secular agents who either attribute the power of creation to man's ingenuity or to the law of nature.

When Allah informs in the verse that He keeps creating (*yakhluqu*), His continuous creation is either by guiding man to produce certain things such as automobile, telephones or by directly causing certain changes to take place in the existing organisms. Unidentified flying objects (UFO) which both USSR and USA accused each other of being an object of spying during the cold war era remains a good example of Allah's typical act of continuous creation. The images sighted in UFO looked like human images. The USA discontinued tinkering with the idea of scientific study of UFO as the researchers started implying the invisible hand of God in the appearance of UFO phenomenon. The mystery of Bermuda triangular Island in USA, the secret of which modern man has not been able to unravel is also part of the continuous act of God's creation.

Climate change can be viewed from two perspectives; first is the human intervention in terms of environmental pollution obviously caused by the industrial activities. The heat and smoke recklessly emitted into the environment through our factories are potent environmental irritants and pollutants. Our factories being source of climate change is a dilemma in the sense that modern man needs improved medication, textile, foot wears, automobiles, papers for various uses, weapons for defence as well as aggression, building materials, etc. If the factories must engage in the production of indispensable items such as listed above, man should expect more pollution, irritation and change. Furthermore, when the ocean is sand filled in terms of dragging water out of its normal channel in order to get space for constructions of any description, a stage is set for climate change because the water that is sent out of its normal habitat will surface somewhere else to wreak havoc.

On the other hand, climate change can be caused by excessive supply of water from sky which is free of any human intervention. The resultant flooding inevitably leads to destruction of lives and properties like the case of overflowing in the Mississippi river at the end of December 2015.

Changes in Organisms

Evolution in terms of gradual transformation of any organism as it changes in size or colour is captured in the Qur'ān thus:

wa qad khalaqakum atwāran (He has created you in diverse stages Q.14:71). *Wa Allāhu anbatakum minal-Arḍ nabātan* (And Allah has produced you from the earth (growing gradually) like plants Q17:71).

In the two verses above, the words *atwāran* and *nabātan* clearly indicate the creation of man taking different stages in the plant growth manner. The two words obviously compliment each other in the sense that while the word *nabātan* indicates the growth in the plant version, the word *atwāra* indicates periodical sequence. This meaning comes out more clearly in the verse that reads thus:

We created human being from clay (12).

Then, We placed it as *nuṭfah* (fertilized egg) in a safe lodging (13).

Then We created *nuṭfah* into an ᶜalaqah (leech).

Then, We created ᶜalaqah into *mudghah* (a little lump, like a chewed substance).

Then, We created the *mudghah* into bones.

Then, We clothed the bones with flesh.

Then, We produced it (the human being as another creation.

So blessed be Allah, the Best of creators (Q.23: 12-14).

It is clear in the above narration that when Adam, the first man was created from clay, his off springs were (still are) created from another stuff totally

different from that of Adam. And like that of his progeny, Adam's creation too was in stages: *wa idhā sawwaytuhū, wanafakhtu fīhi min rūḥī, faqaᶜūlahū sājidīn:*

when I have formed him fully, that is, stage of formation;

and breathed in him my spirit, that is, stage of breathing Allah's spirit into him (Q.15:29).

Therefore, the stages that are involved in the process of Adam's creation are those of formation and breathing of the spirit of Allah. In the case of his progeny, the stages are diverse and sequential. These include transformation from *nuṭfah* to ᶜalaqah to *mudgah* to bones and clothing it with flesh. Then, of course, breathing the spirit of Allah in it.

Another form of transformation is the reference that the Qur'ān makes to the difference in tongues and colours (Q.22:30). For the human skin to cope with the heat in an equatorial region like Africa, it has to be pigmented as dark as possible. But as man moves or migrates to the temperate region like Scandinavia, the human skin will transform and be less pigmented to the fairest colour. Furthermore, it should be noted that changes in the genetic code (DNA), also known as blueprint of biological existence, ultimately translate into presence, absence or relative quality of a certain trait. For example, a change in a certain segment of DNA leads to the condition known as albinism. Different environments are known to significantly impact living organisms. www.medicalnewstoday.com/articles/245861.php

The superiority of the Qur'ānic account on creation manifests in a variety of ways some of which are already pointed out above. In addition, however, the Qur'ān does point to the existence of fossils as early as more than twelve centuries (Q.17: 50-51) before modern Anthropologists and Archaeologists discovered fossilized objects as late as the second half of 20th century. When the unbelievers wondered how God could resurrect the dead after their bones must have decayed and reduced to dusts, Allah said: you will be resurrected even if you turned into stones or iron or a matter which is greater or stronger than iron (Q.17:50-51). The fossils of those who migrated around

the world have been discovered in Africa and China which is a confirmation of the Qur'ānic account on creation, continuous creation, transformation and allusion to stone age. At this juncture, it would be helpful to take cognizance of the affirmation made by the scientists concerning the congruence between the Qur'ānic account and modern science on creation. Maurice Bucaille (1986: 162 & 173), for instance states that 'There is nothing in the text of the Qur'ān that contradicts what we know today about these two celestial bodies'. He states further, "..it is possible to state that the two verses from the Qur'ān agree perfectly with modern scientific data".

The Inimitability of Allah's Creation

Production of footwear, hand set or building by man can be called creation when we take to consideration degrees of creativity and craftsmanship that are involved. But creation as ascribed to man has two characteristics that differentiate man's production from God's.

First, man creates from available materials. A painter, sculptor, shoe maker, printer, a cook depend mainly on deployment of available materials. For argument sake, one can say that in the creation of Adam by God, materials such as clay and water were deployed. But then, the immediate and logical answer to the argument is; what materials were used to create water and clay in the process of creating Adam? In case there are, the question of (what materials?) can go on until we come to the last material that is created from nothing except the divine fiat of *kun*, that is, be and it is.

Secondly, axiomatically, man creates out of imitation of or copy from an existing experience. For example, whenever man creates, he takes one of the following three paths; first, by mere improvement of a readymade object like a luxurious Jeep car, telephone, an aircraft, etc., secondly, by imitation of a previous inventor and thirdly, by observing a natural phenomenon. An architect, for instance, improves on the existing structures. A sculptor can either imitate an established sculptor or depends on watching the surrounding environment. The episode of Isaac Newton is apt for illustration as he came up with his invention, the law of gravity, by observing the falling

of apple in his surrounding environment. So, man in his creation is not absolutely independent of a second or third party's experience. He imitates while drawing his stuff from available experiences and materials.

In contrast, when Allah creates, on some occasions, He creates using materials which initially was His own creation like the clay and water in the creation of Adam or sperm in the creation of Adam's progeny. However, on other occasions, He creates from nothing and He is absolutely independent of a previous second or third party's experience to draw from. The birth of Jesus (Q.21: 91), the Birth of Mary, Jesus' mother (Q.3: 35-6), the birth of Yahya after his mother had over lived menopause period (Q.21: 89-90) as well as the birth of Isaac by Sarah after she had over lived the age of menopause (Q.14: 39) are examples of creation by God either from nothing or out of mysterious circumstances.

After the clay was finally moulded in the case of creating Adam, Allah just merely breathed His spirit to the moulded object. The same method was applied to Mary prior to the birth of Jesus. Breathing His spirit has been a constant application by God even in the creation of human beings in general. There are no previous actors, experiences and environments to imitate, copy or observe whenever God creates.

For more clarity, there are some Arabic words that capture the uniqueness of Allah's creation. These include *jaᶜala* as in *wajaᶜalnā minal māi kulla shay'in hayyin* (We made from water every living thing Q.21:30). *Faṭara* as in *alladhī faṭarakum awwala marratin* (He Who brought you into being in the first instance Q.17: 30); *Faṭaras-samāwāt wal-Arḍ* (Who created the heavens and earth Q.6:79). *Badīᶜu* as in *badi'us-samāwāt wal-Arḍ* (The Originator of heavens and earth Q.2:117). The words *jaᶜala*, *faṭara* and *badīᶜu* show how creation in the reckoning of Allah is distinct from man's creation. While Allah's creation is devoid of imitation or copy and, in most cases, it is without initial materials to be deployed, man's creation cannot be described in *jaᶜala, faṭara* and *badaᶜa* or *badīᶜu* because man creates from existing materials and by imitation or copy.

The Biology Teacher

Biology at the secondary school level is at the centre of the debate on creation. At this level when students are at an impressionable stage, the Biology teacher has an herculean task to appropriately guide the vulnerable learners. Creation without a creator as promoted by the Darwinian disciples is not logical and unscientific. The Qur'ānic account is richer and is in tandem with modern science. Interestingly, the notion of evolution in terms of gradual transformation is equally implied in the Qur'ānic account.

The Methodology

The methodology to use in guiding the students to the right way is absolutely the teacher's invention. In other words, the biology teacher is not expected to reduce anything from the information available in the text books by various authors. After all, the information so provided by authors tallies with the Qur'ānic account. All the teacher needs to do is draw the students' attention to the Qur'ānic account of every segment of biology. Let students know that nothing happens by accident. Every segment of biology has a grand design by the Originator (*Badīʿun*), Who has vividly and explicitly described it. Some of the specific steps to take by the teacher is to operationalize the word *atwāran* to draw attention to how Allah creates in stages. Students should be shown the stages. These include the following:

1. Adam was created from water, clay and breathing the spirit of Allah into Adam's system.
2. Eve was created from Adam (a male source).
3. Isa (AS) was created from Mary (a female source). These three stages of creation are to affirm supremacy of Allah in terms of His ability to create in whatever form and situation.
4. The subsequent human beings are created from another formula, that is:

   (a) from *nuṭfatan* (sperm) that remains in that position for 40 days according to the Hadith of the Prophet Muhammad.

(b) Then transformation to *ᶜalaqatan* (a little lump, like a chewed substance) for 40 days according to the Hadith of the Prophet.
(c) Then transformation to *mudghatan* (bones) for 40 days.
(d) Then the bones are covered with flesh for 40 days.
(e) Then the spirit of Allah was breathed into the system to become human and be born after a period.

The Biology teacher should carry the students along these stages as mentioned in the Qur'ān and as well substantiated in the Hadith through experiment. Since the foetus can be scanned, the validity of the 40 days intervals mentioned in the Hadith can be ascertained.

The Conclusions and Recommendations

Four issues are focused in this write-up, namely the difference between the Darwinian theory of evolution and the Qur'ānic account of creation and transformation. While the scientists declared the Darwinian assertion unscientific, the Qur'ānic account was found to be in tandem with modern science. According to Maurice Bucaille (1979), all the Qur'ānic scientific accounts are unassailable. The Qur'ānic account is detailed and verifiable. Secondly, the Darwinian theory gives man a false impression about himself that he has absolute freedom to navigate on this planet created by Allah without reference to Him (Allah) for guidance. Thirdly, the absolute freedom that man ascribed to himself has been a disaster because as man behaves in a manner that makes the planet too hot for him to live in as manifested in numerous and needless wars that range on in different parts of the world. Fourthly, the biology teacher has a special task to perform in altering the trend. Changing the trend is not optional to modern man given the fact that his assumption that he can do it without reference to God has produced chaos.

It is therefore imperative to do the needful; hence the following recommendations:

(a) The continuous study of the unscientific foundation of the Darwinian evolution theory which the evolutionists vigorously strive to promote.

(b) To do everything possible to checkmate the evolutionists' campaign.

(c) To identify and tackle the link between the Darwinian theory and the secularization syndrome.

(d) A serious study of the various manifestations of secularization.

(e) Vigorous pursuance and articulation of the congruence between the Qur'ānic account and modern science on creation.

(f) To revolutionize the teaching of Biology as a potent means of exposing the weakness of the Darwinian theory.

(g) To explore the Qur'ānic alternatives to the various segments of Biology.

(h) To assist and guide the young learners to capture and appreciate the advantages of the Qur'ānic account not only because it is from Allah but essentially because it is in congruence with normal reasoning and modern science.

References

Bidmos, M.A. (2006) Inter-Religious Dialogue: The Nigerian Experience. Abuja. Panaf Press

Bidmos, M.A. (2013) Islamic Education in Nigeria: Its Philosophy and Research Method. Lagos. UNILAG Press

Bucaille, Maurice (1986) The Bible, The Qur'ān and Science. Urdu Nagar, LHR. AL-FALAH ISLAMIC BOOKS PUBLISHERS DISTRIBUTORS

Burrow, J.W. (1968) (ed.) Darwin: The Origin of Species. Britain: Penguin Books

Darwin, Charles (1859) On the Origin of Species by Means of Natural Selection

Denton, Michael (1986) Evolution: A Theory in Crisis. United States of America. Adler and Adler

Lais, M.A. (2013) 1001 Universal Appreciations and Interfaith Understanding and Peace. Sarasota. First Edition Design Publishing, Inc.

Varghese, R. A. (1984) (ed.) The Intellectuals Speak Out About God. Dallas, Lewis and Stanley

The Holy Qur'ān; English Translation of the meanings and commentary. Al-Madinah Al-Munawwarah. King Fahd Holy Qur'ān Printing Complex.

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