

The Place of Multiple Intelligence in Achieving the Objectives and Goals of Open and Distance Learning Institutions: a critical analysis

ABSTRACT

This paper examined the nature of open and distance learning institutions as organizations where synergy of efforts of all personnel is required in order to achieve the aims and objectives of the institution. It explored the huge infrastructural and personnel requirements of distance learning institutions, especially at inception, and the wherewithal needed for the institutions to survive the challenges of the contemporary knowledge milieu and stand the test of time while ensuring the quality and standard of all the certificates that will be awarded over time. The paper seeks to evaluate the role of multiple-intelligence in the administration of open and distance learning institutions, given that multiple-intelligence allows for improvement in achievement, performance and skills (Sternberg, Turff & Grigenko, 1998).

The paper concluded that the importance of multiple intelligence in the actualization of the broad goals and the specific objectives of distance learning institutions can not be overemphasized in the various aspects of the institutional framework of distance learning. It was also submitted that the discipline of distance education as it has often been construed is an eclectic one requiring an agglomeration of intellectual skills and abilities –multiple intelligence.

Keywords: Goals; objectives; multiple-intelligence; eclectic; skills; abilities.

INTRODUCTION

The organization and administration of open and distance learning institutions, the world over, tend to differ from those of the traditional conventional institutions. There is an agglomeration of intellectual efforts and physical abilities in the approach to goal formulation, management and achievement of organizational objectives in distance teaching/learning institutions. The notion that the quality of training and education at open and distance learning institutions is second-rate stems largely from the fact that many are ignorant of the intricate efforts and skills that are actually needed for the effective and efficient management of such an institution – before, during and after instructional delivery. However, developments in education have proved the effectiveness of distance learning methods in the training of professionals, technicians and artisans who specialize in various fields. Consequently, there is a growing confidence in and assertiveness for this method that had for so long suffered an inferiority complex in the presence of the commonly accepted classroom type of education. This is not unconnected to the fact that the pedagogical effectiveness of distance teaching institutions have become recognized and arguments in support of their cost-effectiveness have become more acceptable. However, one may be unconscious of the mosaic of skills and knowledge that are deployed in the operations of a distance teaching institution before its objectives can be achieved. Providing a theoretical framework for the Otto Peters (1973) likened the operations of a distance teaching institution to those of industrial organization administration of distance teaching institutions, essentially because of the mass production approach to training it adopts. A number of characteristics of the distance teaching instructions make them similar to industrial organizations, viz: large number of students (customers) and consequently mass production of instructional materials

(raw materials), mass access by clients (students) and the guiding principles albeit operation of quality control, and quality assurance on large scale etc. This model of operation draws, consciously or unconsciously, but extensively from a variety of human resource characteristics for the effectiveness of its operations. The purpose of this study is to establish the importance and relevance of multiple intelligence in organizational process with specific focus on open and distance learning institutions.

CONTEMPORARY HIGHER EDUCATION SYSTEM

Tertiary institutions in their present form – overwhelmed by the problems related to access, finance, internal and external efficiency – are not able to provide quality education, especially in the developing world. Enrolment levels have greatly surpassed the carrying capacity of the traditional institutions of learning and much of the instructional content has become dated and irrelevant. This gave impetus to the ascendancy of the distance learning system of educational provision across the global society.

As governmental decision-makers and individuals are coming to an appreciation of the inherent advantages of the distance learning system –cost-effectiveness, accessibility, as well as relevant and qualitative instructional content - the clientele of the distance learning system has significantly risen in many nations. This development gave rise to a massive organizational structure that can be ascribed to the Weberian approach to organizational system and the management principles of Fredrick Taylor. Thus, the industrialized teaching/learning model of distance learning administration, evolved against the backdrop of these theories classical and scientific model of organizational management. Although, every system evolves with its own systemic challenges, it is these challenges that form the basis against which the attendant solutions to the problems are developed. In distance education administration, there is a paradigm shift towards the development of a new organizational culture, arising out of the imperative which devolves on such institutions to attract students and offer flexibility in the combination of courses and their delivery to diverse groups of learners separated by space; time ; prior learning skills and new training requirements.

Consequently, all institutions are expected to offer courses that are global in reach, interactive in nature and affordable in cost. Globalization of education in the 21st century will automatically result in internationalization of the curriculum, multilingual, multi-cultural and multimedia learning environments. In order to achieve these broad educational aims, the process of goal formulation and objectives determination must be approached from a multidisciplinary point of view. This means that the management and administration of a distance educational institution must become a product of synergy and collaborative efforts, which is more integrated than ever before. There is a rise in the demand for increased pooling of resources and skills –especially intellectual and technical skills, to meet the challenges of personalized and customized education in this century. It is on this premise that the theory of multiple intelligence becomes not only relevant, but also an imperative for distance teaching/learning institutions the world over.

The workplace and educational settings is becoming more diverse (Cox, 1993) thus, there is a need to understand the fact that a diversity of skills and abilities within and among the workforce are required in this dynamic, diverse and ever changing organizational environment, especially in the area of goal formulation and task implementation within most organizational settings (Green, Friday & Friday, 2003;

Alper, Tjosrold & Law, 2000; Ezzanel & Willmott, 1998). In today's educational institutional systems especially in open and distance learning institutions it is a necessity to have in place an agglomeration of skills and competencies in order to assail the competitive milieu which the twenty-first century higher education has inextricably entered. It is in the light of this that recruiters in such organizations must be conscious of the need for these diversity of skills and abilities and the most effective means of developing and utilizing them in the achievement of the aims and objectives of institutions such as the open and distance learning system.

In view of the diversities in the open and distance learning mode of operations, courses and programmes offered and the required technical inputs needed for efficiency of the system through the information and communication technologies infrastructures, the workforce broken down to units or groups/teams can no longer be homogenous as they are in a conventional institutions. The concept of workforce over the years has been broadened not only to refer to increasing numbers of minority individuals based on their race, ethnicity, nationality or gender but also to include individual differences based on age, educational backgrounds, lifestyles, functional areas, multiple intelligences and a multitude of other dimensions (Bhadury et al 2000; Green, Friday & Friday 2003). It is in order to assuage this that this paper explores the role which multiple intelligences can play in administering open and distance learning institutions.

FORMATION OF TEAMS/GROUPS

Group is defined as two or more interacting and interdependent individuals that work together to achieve some particular goals (Robbins and Coutler,1999) while a team is defined as a collection of individuals with complementary skills who are committed to a common purpose and held mutually accountable for the accomplishment of a set goal or task (Robbins, 2000). Thus, a well-formed and performing team should produce outputs that are greater than outputs of a group due to the synergy that has been allowed through the complementary work and united ambition of the members of the team to complete the task at hand (Robbins, 2000). Thus, this suggests that ODL institutions workforce need to operate in teams rather than groups (units) in order to gain the maximum potential of working collectively with others.

Theory and research suggest that when qualified individuals with diverse backgrounds collaborate in a team efforts and are given adequate procedures and tools, they tend to produce more and have improved output as compared to individual members working alone or in a group where members are only responsible for their individual parts (Robbins, 2000). Therefore, with respect to diverse teams, the composition of team formation is likely to significantly influence team performance. (Tuckman 1965) remarked that there are five stages to group development:

- forming,
- storming,
- norming,
- performing and
- adjourning.

Love (1996) collapsed Tuckman's model to four stages: forming, storming, norming and performing. He also posited that team follows the same stages of development as groups. From the perspectives of both Trikmens and Love models, forming is the

beginning life stage of a group which involves individuals coming together to accomplish a common goal. Storming is the stage of conflict and resistance where the team members are struggling through their differences. Norming is when the group agreed for resolving issues, making decisions and completing tasks while performing refers to when the team members actually begin to tackle the required tasks at hand in pursuit of its targeted goals. Therefore, the universal sequence for team development is based on those four deduced stages from Tuckman(1965) and Love (1996) models.

As previously pointed above, the initial stage of team development is the forming stage. This is where the individual members of the teams come together for a common purpose to accomplish a goal, which should be understood and agreed upon, by all members of the team. While discussing integrated model of teamwork Thompson (2000) purports that within the team context, essential conditions lead to successful team performance and goal attainment. He posited that the essential conditions that lead to successful team performance are ability, motivation and strategy.

For a team to perform its tasks successfully and attain its goal and objectives, team, members should have complementary set of requisite skills, knowledge and abilities. In an ODL institution, this translates into staff bringing complementary assets including ability, skills, knowledge to the team with an open mind of being in readiness to learn from their new assignments and expositions without an iota of arrogance. Therefore, it is assumed and suggested that the use of multiple intelligences would be useful in workforce team formation and composition in open and distance learning institutions' human resources management and functionality.

MULTIPLE INTELLIGENCE

Intelligence is a term that is loosely used when describing an individual's learning style, preference, aptitude, traits, skills and competences (Jones 2002). Gardner, Howard, a Harvard psychologist disagreed with the use of intelligence as such a narrow description of an individual's capacity for knowledge through his seven multiple intelligence model. Gardner's (1979) Multiple Intelligence model rather suggest that individuals learn from information in a variety of ways and also allows for the categorization of individuals various use of cognition and learning styles in a variety of contextual and naturalistic settings (Gardner 1983). This is in recognition of the fact that intelligence is useful in classroom and the team work settings where individuals bring their learning styles, preferences, and strategies with them.

The seven multiple intelligences are employed in a variety of ways including everyday lifestyles, educational settings and the workforce. Armstrong (1994) provides a clear description of the seven multiple intelligence and their applications as;

- linguistic intelligence;
- logical-mathematical;
- spatial intelligence;
- bodily kinesthetic intelligence;
- musical intelligence;
- interpersonal intelligence and
- intrapersonal intelligence.

Language intelligence is the capacity to use words effectively through oral and written communication. Specifically, linguistic intelligence explores the use of syntax and structure of language and the semantics and meaning of language. Logical-mathematical intelligence is the ability to use and understand numbers well and apply reasoning skills to situations which involves patterns, relationships and abstractions. Spatial intelligence is the perception of the visual-spatial world and the capacity to transform those perceptions into form, colour, space and relationships. Bodily-kinesthetics intelligence is expertise in using the whole body to express ideas and feelings and the ability to transform and produce things. Musical intelligences is the ability to perceive, discriminate, transform and express diverse musical forms through rhythms, pitches, melodies and tones. Interpersonal intelligence is the perception and distinction made about moods, intentions, motivations and feelings of other people with specific attention given to facial expressions, limitations, moods, motivations and the ability to react to this knowledge.

Similarly, the theory of multiple intelligence encompasses functions of cognition, adaptation, competency and complexity. Armstrong (1994) remarked that those functions are not necessarily single acts; they work together in a variety of ways. Thus a person can employ two, three or more of the seven intelligences in a given situation of behavioral act. For example when an individual works in a team, to analyze and present his/her view to other members of the team on an issue within the framework of their given assignment, the individual would use his/her linguistic intelligence for reading and presenting the case, logical-mathematical intelligence for applying reasoning skills based on contents of the assignments in question, spatial intelligence for understanding charts given in the presentation and intrapersonal intelligence for satisfying self with respect to knowledge acquired and presented .

MULTIPLE INTELLIGENCE AND THE OPEN/DISTANCE LEARNING SYSTEM

The place of multiple intelligence in the organization and implementation of open and distance learning institutions is easily established. This is because the nature of open/distance learning system organization requires the existence of certain system infrastructures that cannot be overlooked in the planning and implementation of such systems. Open learning institutions are usually defined by subsystems such as:

- Learner Support Services;
- Materials Design and Production sub-system;
- Copyright and Intellectual Property sub-system;
- Media & Public Relations sub-system;
- Instructional Delivery and Academic Planning sub-system;
- Information and Communications Technologies sub-system;
- Finance & Supplies sub-systems;
- Research and Staff Development sub-system;
- Assessment, Evaluation & Quality Assurance sub-system and
- Administrative sub-system.

It is important to note that none of these components of a typical open/distance learning system functions in isolation, as a matter of fact, it is impractical for any unit to operate effectively, to achieve their individual functions, without inputs from other units. The synergy of efforts in this organizational approach therefore makes it imperative for the personnel in organizations like this to develop a plethora of skills, as an individual may be called upon at any point in time to perform functions outside the original foray of activities for which he/she was appointed.

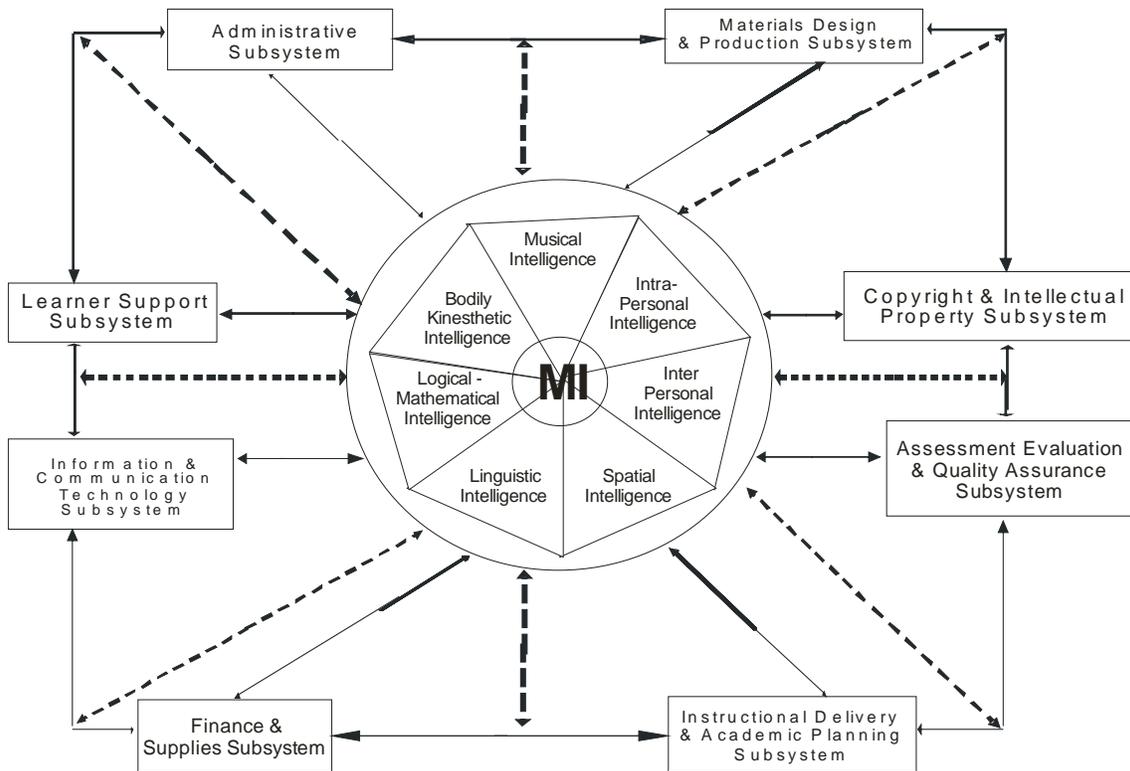
At the National Open University of Nigeria, the Learner Support activities are carried out by the Counsellors and Instructional facilitators at the study centres under the guidance of a directorate at the headquarters, but the information dissemination functions, advice and general relations with students and prospective students are carried out by almost all members of staff maybe due to the knowledge acquired through the staff induction and training in open and distance learning activities. The philosophy that is being espoused is that the function of information dissemination to learners is a general one and should not be the exclusive foray of certain personnel.

In the Examinations Division of the same institution, another reflection of the eclecticism of skills and abilities being proposed by the theory of multiple intelligence can be gleaned. Here the division draws from the various academic units and the learner support services division for qualified staff to draw up examination procedures and models for the assessment and evaluation of students and effective actualization of the objectives of the examinations unit. In course materials design and development, another reflection of the application of the multiple intelligence model is revealed. We find the course writers, who are experts in their field of study developing the instructional content; the general editor ensures that the materials are consistent with the prescribed format/layout and that the institutional house-style is adhered to; language experts rework the materials to have social relevance and cultural orientation; the graphics artists design the pictorial content and models; the audio-visuals experts ensures that the materials are effectively transferred into audio/video tapes, CD and DVD ROMs for multimedia access; the Web artist develops the 'learning objects repositories' to provide access to the materials in a more interactive format. Although an individual may have one or two of the skills and abilities necessary for course design and development, no single individual could possess all of them. Thus, the application of multiple skills, abilities and intelligence is inevitable before course materials can be provided in such a way that it is able to achieve the objective of effectively subsuming the 'teacher', 'instructional method', and the 'instructional content' into the materials for learners.

The theory of multiple intelligence can be applied within the same microcosmic operations of unit/departments of a distance learning system and it may also be utilized in the macrocosmic administration of the entire organization itself. The philosophy behind the application of the theory is that no single intelligence dimension is more effective than the other to fulfill predetermined organizational objectives.

Therefore, a mosaic of such available skills and abilities, knowledge and experiences must be brought to bear in the management and administration of open and distance education institutions because of the complexity of their operations and heterogeneous nature of their objectives; personnel; organizational structure and clientele. Teams are formed to achieve a set mission and goals but that should be understood and agreed upon by all members of the team in order to meet and achieve the targeted qualitative goals of the institutions. Thus, the model of multiple intelligence shows the process of multiple intelligence in the operations of open and distance learning system.

MULTIPLE INTELLIGENCE IN OPEN AND DISTANCE LEARNING SYSTEM



The model conceives effective team and group activities as a product of multiple intelligence. This view is completely opposed to the great-man conception of team/group direction in which superior intelligence is seen as being vested in a particular individual or cadre of individuals who are solely responsible for developing policy direction for the effectiveness of organizational functioning. Each of the organizational subsystems within the open and distance learning system can only succeed if the dynamic interplay between the various admixtures of skills present within the subsystem is effectively annexed to in the operations of the sub-system.

This is the micro-application of the concept of multiple intelligence in the development of departmental goals and objectives as well as the means of achieving these group objectives. Each unit may draw from the repertoire of intelligences at its disposal among its personnel, since each individual has at least one predominant intelligence from the seven principal groups identified by Gardner (1982; 2000), viz: linguistic intelligence; logical-mathematical intelligence; spatial intelligence; bodily kinesthetic intelligence; musical intelligence; interpersonal intelligence and intrapersonal intelligence. With individuals bringing to group work, a predominance of each of these intelligences in which he/she has greater strength of application, one finds an eclectic viewpoint and a more robust and effective approach to goal formulation and achievement.

The theory could also be provoked at the macro level of application for the entire organization at large, keeping in mind that each of the units will bring to the central organizational planning process, their predominant skill, ability and intelligence. When these are activated for the planning process for the entire organization at large, it will ensure that there is a qualitative goal formulation approach in which the

best of every conceivable skill will be brought to bear in the effectiveness of organizational activities.

CONCLUSION

Conclusively, the more the teamwork approach is used to handle the various aspects of work and services that characterizes the administration of open and distance learning institutions, the more comfortable the entire staff and the better the path of progress made.

This proposed synergy, based on an interdisciplinary approach to policy formulation and implementation, would help to eliminate existing bottlenecks that could inhibit effective achievement of outlined institutional goals and objectives. It would also enhance efficiency through qualitative inputs that underscores all activities of the various committees, agencies and other organs of administration in the institution. Therefore, team work, based on multiple intelligence, should be infused into the administrative system of open and distance learning institutions, be it academic or non-academic.

Using a broader view of diversity, multiple intelligence principles should form the bedrock of composition of working teams in order to enhance intelligence, quality of output and services. In the final analysis, this would eliminate intelligence limitations, thereby making teams to more robust and well grounded through effective cross-fertilization of ideas.

BIODATA AND CONTACT ADDRESSES of AUTHORS



Olugbenga David OJO (Ph.D) has his Degrees in Educational Guidance and Counselling Psychology from University of Ilorin, Nigeria and Obafemi Awolowo University, Ile-Ife Nigeria respectively.

He is in the Examinations Unit of the National Open University of Nigeria. He has published extensively in his area of specialisation

Olugbenga David Ojo
National Open University of Nigeria
14/16 Ahmadu Bello Way, Victoria Island
Lagos, NIGERIA
Email: gbenga_ojo2001@yahoo.com



Felix Kayode OLAKULEHIN has Masters Degree in Educational Administration and Management from University of Ibadan, Nigeria.

He is in the School of Business and Human Resources of the National Open University of Nigeria. He is currently running a programme on scholarship with IGNOU

REFERENCES

ALPER, S., Tjosvold, D., & Law, K.S. (2000). "Conflict management, efficacy, and performance in organizational teams." *Personnel Psychology*, 53(3), pp. 625-635.

ARMSTRONG, T. (1994). *Multiple Intelligence in the Classroom*. Association for Supervision and Curriculum Development: Virginia.

BHADURY, J., Mighty, E.J., & Damar, H. (2000). "Maximizing workforce diversity in project teams: A network flow approach." *Omega*, 28(2), pp. 143-153.

COX, T.H. (1993). *Cultural diversity in organizations: Theory, research and practice*. San Francisco: Berrett-Koehler Publishers, Inc.

EZZANEL, M & Willmot, H. (1998). Accounting for Team work: a critical study of group based systems of organizational control *Administrative Science Quarterly*, 43(2), pp. 350-396.

GARDNER, H (1983) *Frames of Mind: Theory of Multiple Intelligence in Practice*. New York: Basic Books

GREEN, A.L.;Friday, E; Friday, S.S (2003). *The Use of Multiple Intelligence in Team Formation*. Proceedings of Annual Conference of Association of Social, Business & Behavioural Sciences

JONES, C. B. (2002). Learning Styles: myth or reality? *Faculty Voices*, 7(2), pp. 9-10.

KEEGAN, D. (1993). *Otto Peters on Distance Education: The Industrialization of Teaching and Learning*. Routledge: London.

LOVE, R. (1996). Four Stages of Team Development *Evangelical Missions Quarterly* 32(3), pp. 1-3.

PETERS, O. (1973) *Die didaktische Struktur des Fernunterrichts. Untersuchungen zu einer industrialisierten Form des Lehrens und Lernens*, Weinheim: Beltz

ROBBINS, S. & Coulter, M. (1999) *Management*. New Jersey: International Prentice-Hall

ROBBINS, S. (2000). *Essentials of Organizational Behaviour*. Prentice-Hall:New Jersey.

STERNBERG, R., Torff, B. N. & Grigorenko, E. (1998). Teaching for Successful Intelligence Raises School Achievement" *Phi delta kappa*, 79(9), pp. 667-669.

THOMPSON, L. (2000). *Making the Team*, Prentice Hall: New Jersey.

TUCKMAN, B. W. (1965). Developmental Sequences in Small Groups" *Psychological Bulletin*, pp. 384-399.