ORIGINAL RESEARCH PAPER

Education

ASSESSMENT OF CONCENTRATION LEVEL REPORTS: IMPLICATION TO IMPROVE ON HUMAN CONCENTRATION WITH AN ENHANCEMENT PROGRAM/TOOL FOR LEARNERS.

Mr Vicky Jaiswal	8 Infinity Education Research (Managing Director)
Megha Singh*	8 Infinity Education Research (Education Researcher)*Corresponding Author
Mr Suresh Ambulgekar	(Managing Director), 8 Infinity Education Research
Ms Pragya Joshi	(Education Researcher), 8 Infinity Education Research
Ms Sejal Jain	(Education Researcher), 8 Infinity Education Research

ABSTRACT

Background: Everyone has a different brain programming some people have a brilliant concentration but some people struggle to focus on things or to pay attention. This, research is focused on the importance of concentration for learners as the previous studies also concluded that higher levels of concentration are vulnerable to distractions. Hence this research is intended to assess the reports generated from the Aimtest tool administered by 8 Infinity Education Research group in India with the end view of identifying its implication to enhance the human concentration level. **Materials and Methods:** This prospective study operates on evocative research method which involved the use of documentary analysis, questionnaires and interviews with voluntary opted respondents carried by researchers' approach and analysis pertaining to the content of the data. **Result:** In this pilot study, we recruited 159 individuals age 8 to 20 years between the academic standard levels 4th to 12th who were chosen after consent for this assessment. The Aimtest calculated their Memory, concentration level and, reading speed with the proven formulas. We have found overall 83.64% satisfaction rate among all the categories. **Conclusion:** Based on the descriptive research our findings suggest that this tool can be used to enhance the concentration level as well as it can also be embodied in academic institutions to improve on the learning ability of students.

INTRODUCTION

The current era has changed the means and media of learning. Gradually the advancements in technologies impact the approach to acquire, learn, update and correct the understanding of people. This emergence has created formal education and informal learning considerable and affordable. But now everyone is paying its cost since nothing comes without a cost. These advancements and ease of access is progressively and negatively affecting on the capacity to understand, learn, focus and interact with people and things. Meticulously concentration is one of the main factors which are continuously affected by these advancements of digital age.

There are two common aspects that affects concentration level are exogenous factors and endogenous factors. The exogenous factors begin with the difficulty of task accomplishments that has to be balance for maintaining the performance levels in other words these are the intellectual challenges whereas the endogenous factors are linked to motivation and trait capacity. On the basis of these two factors the level of concentration can vary from high to low consequently the concentration is associated with focused attention but both are divergent. The focus attention is like the absorption of a spotlight it is the capability to accept attending to parts of all incoming stimuli [1]. According to the study authors confirmed that there is a variation in capacity of memory with individuality that is interrelated to task management and facing the distractions hence the concentration is directly associated with degree of attention engagement [2]. Concentration is also associated to motivation but in a discriminated way [3].The researchers embedded the concept of WMC (working memory capacity) for identifying the ability of individuals for attention engagement with an observation of concentration as an endogenous factor [4]. The author has presented a study based on the review of psychology, neuroscience and cognitive researchers and explored that due to multitasking and media usage the students are affecting their attention and

memory. Now they are having difficulty in understanding and remembering the learning along with this their reading-writing skills, grasping skills and overall test performance also degraded [5]. In [6] the authors concluded that concentration is the key which can shield against distraction and identified two reasons for justification. The reason is undesired processing of background is reduced and the locus of attention becomes steadfast.

Therefore, our proposed work is targeting on the assessment tool named Aimtest to help the learners to identify their skills for better learning and improving on their intelligence. Various academic counselors uses several types of assessment programs and tools to augment self-awareness, career awareness, career guidance for planning and decision making. The Dermatoglyphics Multiple Intelligence Test (DMIT) is one of the assessment tools resulted from the Dermatoglyphics technology. The multiple intelligence (MI) theory was proposed by Prof. Howard Gardner of Harvard University in 1983 in his revolutionary book named Frames of Mind. The theory defined the concept of intelligence with eight notions namely; linguistic, musical, logical/ mathematical, visual/spatial, bodily/kinesthetic, intrapersonal, interpersonal, and naturalistic [7]. These eight distinct intelligences are based on abilities and skills that are appreciated within different cultures and have an evolutionary history.

Our study is also related to the theory of multiple intelligences as it has strong inferences for learning and development. Therefore our study will help the students and all learners to control actions and to focus or concentrate on things what really matters. The implications to enhance our vital and everlasting skills will be a success in education, learning and in the several facets of life.

OBJECTIVES OF THE STUDY

This research aimed to assess the reports generated from the Aimtest online tool administered by 8 Infnity Education research group in India. The Aimtest is an online test for

learners that check their ability with respect to various important factors like concentration, memory, problem solving, logic, knowledge, management and various psychological aspects. This research is conducted to identify the beginnings of Aimtest with its salient features. This study also aims to identify the respondent's perception about the benefits of this program. The end view of Aimtest is to identify its implication to enhance the human concentration level.

METHODOLOGY
Research Design
This work is based on the descriptive research design. The aim of prospective research is to obtain the required information through questionnaires, interviews with the aid of study guide or personal interview schedules along with the observation either participatory or not. This study used the open questions in a way that it may produce unexpected results, which can make the research more novel and valuable. However, it is a complex task to analyze the findings when the data is obtained through the questionnaire with open questions. Therefore scaling questions are also included to take a valid response. On the basis of questionnaires response a satisfaction rate and dissatisfaction rate is calculated. The questionnaire is designed with scaling questions that have an option for respondents to rank the available answers to questions on the scale of given range of values (from 1 to 10). The satisfaction is defined with rank $\geq$ 7and dissatisfaction with rank $\leq$6. The sample questionnaire utilized is shown in the figure below as figure 1 and figure 2.

Figure 1. Parent's questionnaire

Figure 2. Students Questionnaire

For the feedback collection and scrutiny of the responses a blind was recruited who was not aware about the research study. The only responsibility of the blind is to take the feedback from students and parents after the exam and to analysis of the response. This method helped to design the research and to collect and describe the data and its characteristics with its population effectively. The employed method helps to endow with the factual, systematic and accurate data.

This study includes 159 individuals age 8 to 20 years between the class levels 4th to 12th who were chosen after consent for this assessment study particularly in the cities of state Madhya Pradesh. Students and their parents are included as respondents for the study who willingly presented themselves for this assessment analysis. The population of 159 respondents is categorized into business class, Service class, upper class, Middle class, and proletariat class.

MECHANISM AND TOOLS
To facilitate the former objectives of this study, the researchers utilize the documentary materials in the form of Aimtest result reports from 8Infinity Education Research (A Private Limited Company with ISO certification) along with some research publications. The latter two objectives are accomplished through questionnaires and the Interview Schedule (IS) or open questions as fundamental tools for a congregation of data. The questionnaire is comprised of a sequence of questions that attains the information from the respondents hence it is a self-administered research tool. Whereas the interview or interview schedule (IS) authorizes the reliability and legitimacy of the collected data from the respondents, consequently it is an interviewer-administered research tool [8].

Procedures
An approval to utilize the Aimtest reports from the Aimtest Private Limited company and from the selected parents, students, guidance counselors, faculty members was required. From the authority and Institutions of Madhya Pradesh an approval was also availed to conduct the study and to assist the data. For validating our data in a rapid manner the researchers opted for both open questions; Personal Interview Technique (PIT) and the Group Interview Technique (GIT) this allows us to confine the group opinion. Preferring both interview techniques is beneficial [8] as the author observed that the group interviews are best for gathering data to plan the project actions though the personal interviews allows us to create benchmark data. Both provide a foundation for evaluation and comparison of the impact of the study to the beneficiaries.

Data Analysis

For the regulation, standardization and understanding of the study data analysis and interpretation is a necessity. For the above criteria an organized approach with innovative and disciplined skill is required. For utilizing and analyzing the data from the collected documentary proofs are followed by the steps provided in [9] for this study. Thus, the data from the questionnaires and interview schedules associated with this study were used. This enabled us to gain the knowledge of data, categorization of information, focusing on analysis, and determining the links between categories of data and interpretation of data.

RESULT AND DISCUSSION

Origin and Idea of Aimtest:

Consequently, after exploring several research studies on human behavior and intelligence we concluded that there is a strong need for a system that can optimize human behavior and its abilities with some effective strategies and also provide the solution for the weak points. A review of the literature was conducted to synthesize the available data. Various researches are available on brain functioning, memory, and concentration levels but there is no evidence found which can reflect the possessed memory and concentration level of a subject.

Here the spark of this nonexistence was striking continuously that emerged with an idea of a tool named Aimtest that can procure the in-depth analysis with the proven formulas of a human brain concerning mainly with the memory, concentration, study potential, and reading speed of a subject together with more than sixty-one parameters that play a vital role in life. The Aimtest had been developing after several years of research on various psychological aspects and cognitive behavior of subjects along with neuroscience studies. The team is continuously making efforts to obtain the results with an effective approach. Through Artificial Intelligence, behavior is measured with various cognitive skills involved within the facts based on the formulas and memory theories [10]. The assessment results will be used for guiding and improving the capabilities of the subject.

Features of Aimtest

Aimtest is a product of 8Infnity research group that has structured the test and the report in a different way to facilitate the complete analysis of multiple intelligences along with memory, concentration, study potential, and reading skills. The Aimtest works on four main key features; SWOT analysis, Multiple Intelligence, Thinking style, Career options. The complete analysis is formulated with some formulas based on the continuous research since last five years. As there is a strong need of a tool which can check the human brain abilities and provide the enhancement over the weak element. This tool is aimed at the analysis and enhancement for the human brain.

Clients

On the basis of the client's insight associated with the Aimtest tool a significant result was found, 83% of the respondents were satisfied and strongly agree that the result of this test can provide accurateness about Childs' behavior along with their memory and concentration strengths and this would consecutively support in taking the right decision for their career and in the activities they could involve in. It is also noteworthy that they agree with the results headed for taking the right course for study so that the child could involve in what would make their brain cheerful and stimulated all the time.

The SWOT analysis of the result helped to know about the Strengths, Weaknesses, Opportunities, and Threats analysis of a respondent/child. Reading speed and study potential focuses on the learning skills, learning and thinking style demonstrate the areas that are high for them as well as knowing them to lead a successful life. This Aimtest tool when employed by clients would definitely boost their career and life standards.

Students

According to the interpretation of the data more than 80% of the respondents strongly agreed about the obtained results and the overall satisfaction rate of this study are 83%. The Aimtest result assisted them to recognize their learning styles and also changed their invasive habits. Most of them understand what their weak points are and how to overcome that by using the right study method relative to their memory capacity and learning and thinking abilities. Although several tests are available that endows with a static result of a particular performance at any time although this Aimtest tool persists a continual growth and development of a student in all gradients of life and this was believed and observed by the students.

AIMTEST RESULTS & IMPLICATIONS

Several types of research have been carried out relative to human concentration and its measurement but the previous studies mainly focused on the change in human concentration states by attempting different methodologies, this study is a formal assessment of the human concentration that is based on an online tool Aimtest or result reports administered by 8 Infinity Education Research group in India which is an ISO 9001:2015 certified and registered company.

This study is a pilot study in which 159 individuals are recruited in the age 8 to 20 years between the class levels 4th to 12th who were chosen after consent for this assessment. The population of 159 respondents is categorized into business class, Service class, upper class, Middle class, and proletariat class. The obtained results are 86%,92%,82%,81%,68% respectively for business class, Service class, upper class, Middle class, and proletariat class. We have found overall 83.64% satisfaction and 16.35% dissatisfaction rate among all the categories. The mostly satisfied respondents belong to Service class (92%) and Business class (86%) and the most dissatisfied population belongs to Proletariat class (36%). The result calculation with categorization is shown in below table 1.

Table 1. Obtained result with data categorization

Number of Respondents with Category	Satisfaction Rate	Dissatisfaction Rate
Business class: 46	40/46(86%)	6/40(15%)
Service class: 38	35/38(92%)	3/38(7.8%)
Upper class: 28	23/28(82%)	5/28(17.8%)
Middle class: 22	18/22(81%)	4/22(18%)
Proletariat class:25	17/25(68%)	9/25(36%)
Total(159)	133/159(83.64%)	26/159(16.35%)

The present study focused on presenting baseline data for its prominent features and sequential development but it is equally focused on the benefits and implications derived from the results of the test. Optimistic remarks and encouraging efforts are received as the result of the interviews from the respondents and clients. It is worth mentioning that there was a common harmony found from the participants considering the beneficial effects of Aimtest and its result.

The majority concurs about the vital assessment that not only assesses the intrinsic intelligence but also identifies the various aptitude of the individual. This test also attempts to record several cognitive and creative practices present in the brain. It also endows with a progressive performance with a progressive result and hence continually contributes to the growth and development of a child's talent together with the educational aspects.

In academics also Aimtest helps individuals to know the existing skill sets that help them to improve on their learning

experience. It is also notable that the conclusion of the results of this study facilitates the baseline data in the major life preferences for setting an aim of life; it also incorporates a goal-setting behavior for their lifestyle expectations.

Limitation

There are two major limitations of this study, as the number of individuals is limited due to the pilot study. In future the research team is aiming at conducting the study on a large population to authenticate and improve on the satisfaction rate of Aimtest. As there is no similar study available to compare our results and implications.

CONCLUSION

The Aimtest was planned in the year 2017 by an Indian researcher Vicky Jaiswal, however, formulating it as a scientific and testing discipline with the research team it is coined in the year 2021. The idea of Aimtest began with the Howard Gardener theory of multiple intelligences but with some new concepts of calculating human brain memory, concentration, reading speed etc. The initiative behind the development and assessment of this preparation is to enhance the human brain working in the context of memory and concentration. The result of the interviews performed compared with the beneficial effects of the Aimtest results has received encouraging observations and comments from the respondents especially from the guidance counselors, faculty members, and administrative authorities of academic institutions, students, and parents. It has been observed that this assessment is accommodating to support the continual mapping of growth and development of a learner's skills along with education ascent.

The findings have some implications that it can also be embodied in academic institutions to improve the learning ability of students which will deal with complexities of understanding for a better concentration and memory. The findings of this study will also provide baseline data as a foremost preference to measure the memory and concentration of the human brain. The result will help to guide and strengthen the goal-setting behavior of students for their present and future expectation. The research team is also working on the parameters included for the test and the results may be used by the team to guide on improvisation of the concentration level of the human brain.

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