

The Current Situation of Active Living for People with Cognitive Disabilities in Saudi Arabia

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Abstract

The study sought to establish the role of special education strategies for individuals with intellectual disability in influencing learning outcomes in Saudi Arabia. The investigation assumed a quantitative approach and used a structured questionnaire as the primary instrument for data collection. The survey was based in learning institutions in Saudi Arabia. The survey examined the most prevalent special teaching technique such as: baby steps, play based, hands on, and group leaning techniques. The snowballing sampling technique was used to recruit participant for the study. The findings reveal that most teachers utilised the baby steps technique, a mental approach which uses various scaffolds to help the learner achieve the desired set of outcomes. Further, the study revealed that learners realise better learning outcomes when the appropriate techniques are applied in the learning process. The study recommends that relevant authorities in Saudi Arabia should emphasise the complete implementation of special techniques in the leaning process for all children with autism to enable them develop into responsible adults.

Keywords: Active Living, Cognitive Disabilities, learning institutions ,Saudi Arabia.

Introduction

Background of Research

Active living is the concept developed to remedy this type of challenges and inspire healthier lifestyle and practices among people of various backgrounds. Active living pertains to the incorporation of the elements of recreation and physical activities into day-to-day routines that encourage people to practice healthier regimes (Rimmer, 2017). Some of the notable activities include walking, biking, practicing healthy diets or even running. The claim follows that active approach to everyday life helps alleviate health-related pressures and ensures that people co-exist peaceably (Rimmer, 2017). The foremost factor in active living is the facilitation of the process itself, which requires the creation of an environment that actively supports the implementation of the culture.

Active living is a major facilitator of success in various dimensions in life; which brings the plight of people with disabilities to mind. Often, individuals with disabilities face significant challenges that push them to the fringes of the community. Worse still, most contend with isolation, which deny them the opportunity to live close or mingle freely with family and other members of the society. Disability is a natural condition that is not unique to any particular region. Alkhenizan, and Basudan (2018) posit that Saudi Arabia has a sizeable portion of its population living with disabilities of different kinds similar to other nations. The source reveals that the increase in the number of people living with cognitive disabilities remains a poignant subject in the country. Additionally,

The findings of the study reveal that the nation had a Mild Cognitive Impairment prevalence of 45% and prevalence score of 6.4% for dementia. Important still, low education was found to be a major risk factor.

Existing evidences show that cognitive disability is a major scare in the region. Essentially, cognitive disability has a negative impact on intellectual development. Ultimately, this will affect the learners' academic performances. With an overall severity rate of 4.3% (1 out of every 30 individuals) Bindawas and Vennu (2018) notes that Saudi Arabia has a significant incapacitated population that needs rehabilitating. Despite having an advanced educational system, Saudi Arabia has yet to implement an effective approach the supports people with intellectual disabilities. In a recent study Alshamri (2019) reports that only a few teachers integrated advance technology into their practices to improve learning outcomes. Further, both parents and teachers showed little or no confidence concerning the efficacy of the current educational systems. Notable special tutoring techniques for students with cognitive disabilities include hands on, baby steps, play based, and group leaning

Statement of the Problem

A large body of research exist that explores various issues in Saudi Arabia, key among them, culture, health, and education. According to Alaboudi et al. (2016) the nation faces numerous challenges despite registering considerable improvements in various sectors. Zakaria et al. (2018) observes that the local administration has accentuated the enhancement of the education and healthcare institutions in the last decade. Unfortunately, the existing laid framework, more so, in education does not meet the needs of people with cognitive disability.

The education system in Saudi Arabia, for instance, lacks the appropriate technological systems and curriculum programs that facilitate active living among people with learning disabilities. For this reason, a gap in research exist that explores the suitability of the existing educational systems for people with intellectual challenges. The extant study will strive to contribute towards filling this field in research.

Research Purpose

The primary aim of the paper is to investigate the role of special education programs in influencing learning outcomes among students with cognitive disabilities in Saudi Arabia. The study will explore the problem of the current education system which is available but the mechanism of the programs does not help people with intellectual disability or people with autism to become independent or earn their living or even start their own families. Overall, the research seek to demonstrate the significance of active living for people with cognitive disabilities in Saudi Arabia. The following research objectives and questions will guide the course of the investigation.

Research Objectives

- i. To explore the significance of active living for people with cognitive disabilities in Saudi Arabia
- ii. To explore the conduciveness of the Saudi Arabia education system in support people with intellectual disabilities through the learning process
- iii. To determine the association between special education **techniques** and learning outcomes

Research Questions

- i. What is the significance of active living for people with cognitive disabilities in Saudi Arabia?
- ii. What is the suitability of the conduciveness of the Saudi Arabia education system in support people with intellectual disabilities through the learning process?
- iii. What is the association between special education **techniques** and learning outcomes?

Structure of the Study

The study will assume the five-sectional structure which includes the introduction, literature review, methodology, result analysis, and conclusion. The initial section provides a concise description of the study background and presents the research objectives and questions which will guide the course of the examination. The second section involves the in-depth scrutiny of existing studies published on the research problem. The methodology discusses the various research approaches and strategies that will help in responding to the research questions. Further, the results presents the analysis, presentation, and interpretation of data collected from the survey. Finally, the conclusion presents the closing remarks and recommendations for relevant authorities and future studies.

Literature Review

Introduction

Literature review refers to the exhaustive appraisal of past studies published on a particular subject.

The extant section will focus the discussion on depicting the connection between various elements that support learning for individuals living with cognitive disabilities. Active living has fast become a popular culture within many world societies the different cultural orientations notwithstanding. In this case, factors such as active living, special educational programs, and educational performance constitute the bulk of the review. The stated components underscore the scope of the review in its entirety.

Existing Knowledge

According to Lee et al. (2012) 5 million deaths yearly thanks to physical inactivity. The vast majority of people do not attach importance to active living and reports of physical inactivity among the populace in many nations abound (Hallal et al., 2012). The phenomenon has become a global concern for most middle and low income nations (Ng & Popkin, 2012). The United Nations (UN) recognises physical action as a priority domain under its non-transmittable disease initiative (Brownson, Boehmer & Luke, 2005). Physical activity tendencies have shifted massively over time. According to Sallis, Floyd, Rodríguez and Saelens (2012) contemporary aspects of social life have had considerable effects on people's engagement in active living. The scholars observe that most people yield to the demands of the daily routine, which compels to lead passive lives with only minimal physical activity. Additionally, the academicians contend that urban planning programs, modern infrastructure, and related technologies that mostly favour automobile transit, increase of electronic amusement alternatives and the presence of effort saving gadgets at and work have reduced physical activity substantially.

Built environments must avail conditions that support the implementation of strategies that sustain active living as basic for increasing physical action and improving wellbeing.

Numerous choices influencing physical movement conditions happen at the nearby government level. In spite of the fact that chairmen, city chamber individuals, and different authorities work each day to adjust contending interests, they likely do not consider that situations supporting physical movement could deliver extra advantages for their networks. For instance, changing zoning codes to support blended use advancements can improve property estimations and diminish carbon outflows (Frank et al., 2006; Frant et al., 2010). Having parks in neighbourhoods has been connected with physical and emotional well-being benefits (Di Nardo, Saulle & La Torre, 2010). There is no asset that inspects the wide scope of potential co-advantages of networks intended to help dynamic living, which can be classified "movement agreeable situations" (Sallis et al., 2015). Along these lines, the point of the present investigation was to accumulate proof about the connection of movement inviting ecological ascribes to different potential results. The desire was that few co-advantages would be recorded, yet negative impacts were additionally included.

One of the notable studies that contribution significantly towards the enhancement of the learning process for people with disabilities is the research by Aldabas (2015) which acknowledges the Saudi government's effort in the implementation of special education in the region. The scholar divulges that the provision of special education in Saudi Arabia has existed for more than half a century. The program was initiated earlier in the second half of the 20th century.

Unfortunately, the source notes that various challenges have marred these initiatives making it impossible to realise the intended goals. Some of the major changes needed in the program include seeking inclusivity and affordability for all disabled persons. The study used an interpretivist approach to conduct an explorative study which sought to discuss the history and elements of these special education programs that require reforming. In another study, Alshamri (2019) conducted a survey using the quantitative approach to assess the type of education provided to learners with cognitive disability in Saudi Arabia. The scholar based the study from the perspective of the student's tutors and parents. Using a sample population of 95 participants the study established that most tutors opted for the baby step approach when handling students living with intellectual disabilities. Again, most parents were at fault for not engaging directly in the learning processes of their children. Further, a significant number prioritised formal education over the special education for their children.

Overall, the parents and teachers demonstrated that had little or no confidence in the strategies used in the Saudi Arabian educational institutions for their disabled children.

Methodology

Research Design

In scholarly studies, a research design denotes the means through which an investigator undertakes the processes of data collection and analysis (Nardi, 2018). Under the conclusive approach, the study employed the descriptive research design to help describe the relationships between phenomena as well determine their causes and effects.

The descriptive design helped meet the requirement of research objectives, which included describing and discussing various aspects of entrepreneurial development. In justification, the descriptive research design allows for the evaluation of variables in a study (Nardi, 2018). Moreover, the use of the deductive research approach was instrumental in the testing of the research hypothesis that postulated that there exists a positive relationship between special education programs and learning outcomes. As well, the study used the cross-sectional survey approach in the collection data.

Research Method

Bryman and Bell (2015) define research methods as the specific strategy used for data analysis. The quantitative research method was preferred over the other research method – qualitative and mixed. One, the quantitative research was in agreement with the research philosophy (pragmatism), designs (descriptive) and approach (deductive) selected for the study. Second, the quantitative research method allows for the use of statistical data in the analysis of research variables. Further, the method operates in primary inclined researches exclusively and depends on data obtained through direct observation.

Research Strategy and Procedure

The main strategies used in the data collection process are survey, action research, experiment, archival research, case study, action research, and ethnography.

The extant study employed the survey strategy and administered structured questionnaires to a sample of 150 teachers from 8 different public learning institutions in westren Saudi Arabia – the study location.

The researcher employed the snowballing sampling technique to recruit participants for the study. Due to the distance between the various schools, the investigator nominated to restrict the study and participant engagement to online media. First, the researcher enlisted the services of contact persons who identified eligible individuals and proceeded to provide their contacts (phone numbers and email address). Next, the researcher sent the selected individuals copies of informed consent forms. The individual sent questionnaires to those who responded and returned signed informed sent copies only. The research sent a single copy of the questionnaire alongside informed consent forms to each firm and requested the firm managers to respond and not the employees. The questionnaire was designed to provide demographic and descriptive data. As well, it contained a 5-point Likert scale devised to assess the respondents' attitudes and perceptions concerning various issues related to entrepreneurial development and employment generation in Nigeria. The returned questionnaires were subjected to further scrutiny using version 23 of the Statistical Package of Social Sciences (IBM SPSS). The software developed the following regression model to aid the analysis:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where Y = Learning Outcomes and X = Special Education (type)

Ethical Factors

Adhering to the ethical requirement is an essential requirement for all scholarly investigations. The investigators obtained approval from the pertinent authority from the educational institution and used it to gain entry and acceptance in the various respondent premises. The researcher ensured to obtain each respondent's informed consent before proceeding with the study. The examiner was insistent on the fact that participation was on a voluntary basis and as such was free from any form of coercion. Next, the investigator cautioned the respondents against providing their real names in a bid to ensure anonymity. Lastly, to ensure confidentiality the researcher stored all the questionnaires returned from the survey in lockable drawers.

Analysis of Results

Introduction

From an initial target of 150 participants, the researcher collected and reviewed 100 completed questionnaires. The figure represented a 67% response rate, which shows that the findings represent the targeted sample. The analysis entails the presentation and scrutiny of the survey results. The approach will involve assessing each survey question to determine the responses provide by the respondents. The section will discuss frequencies in the respondent information, mean values in the descriptive data, and correlation in the inferential analysis.

Respondent Information

Gender of Respondents

The respondents were asked to specify their genders. Normally, women and men tend to have conflicting perceptions and attitudes towards on poignant social issues. Opinions on social matters differ among the genders hence, it is essential to acknowledge the fact to avoid bias. The female gender made up 64% of the sample population. On the other hand, the male gender constituted 28% of the sample. The remaining 8% indicated that they preferred not to divulge their gender. This option was included to minimize bias that stems from limited options in this category. See figure 1 below.

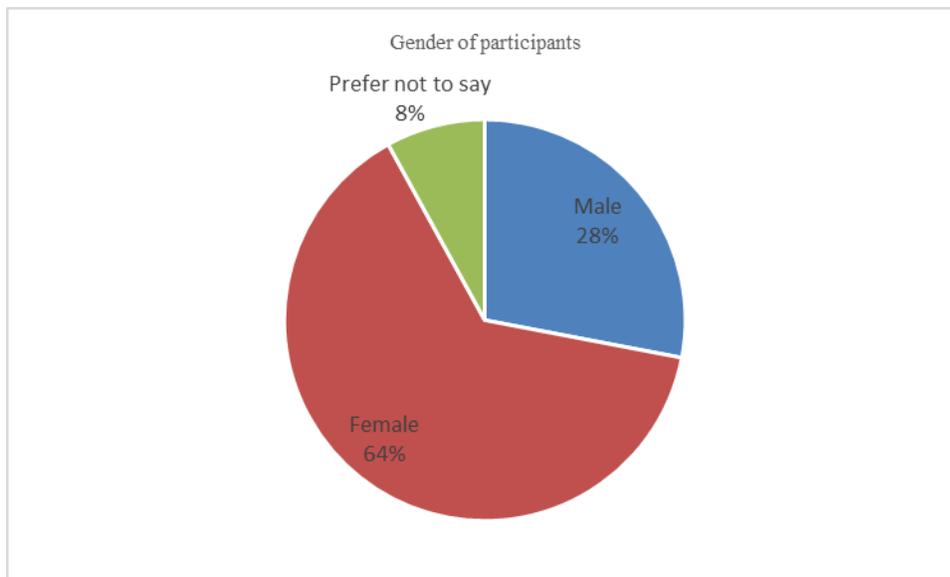


Fig 1: Gender of participants

Age of Respondents

The questionnaire required the respondents to indicate their ages to determine if the sample met the participation requirements (inclusion criteria). As well it helped establish that the sample comprised adults exclusively. The results recorded for this question showed that the largest age group (41 participants) comprised individuals aged between 40 and 49 years. The second largest comprising 25 respondents constituted individuals aged between 50 and 59 years. Again, 23 respondents indicated that they were aged between 30 and 39 years. The smallest group which comprised of only 11 participants revealed that they were aged between 20 and 29 years. Figure 2 below shows the results.

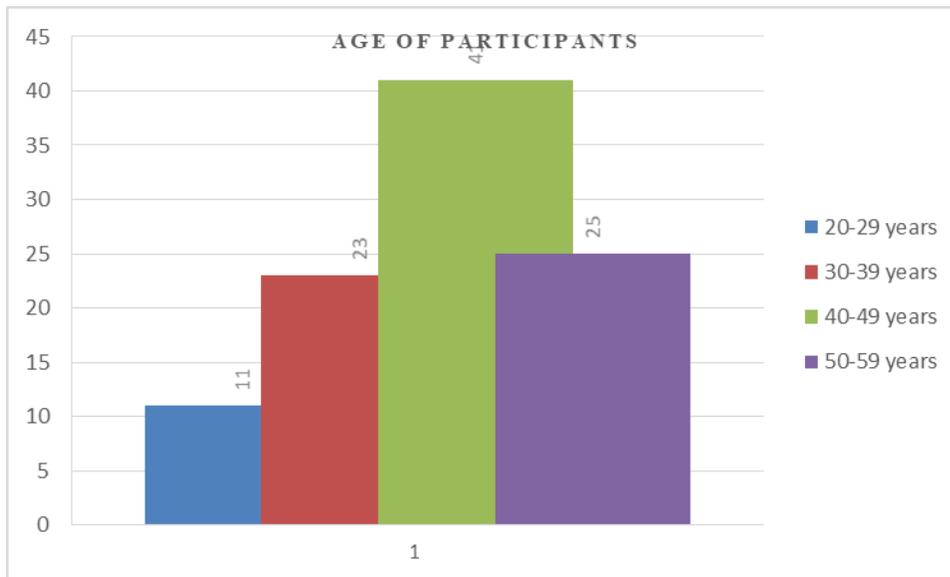


Fig 2: Age of participants

Educational Qualification

Thirdly, the survey sought to determine the educational qualifications of participant. According to the results recorded, 70% had gone through college. While 22% indicated that they had gone through secondary school. Significant still, the remaining 8% revealed that had a master's degree. See figure 3 below

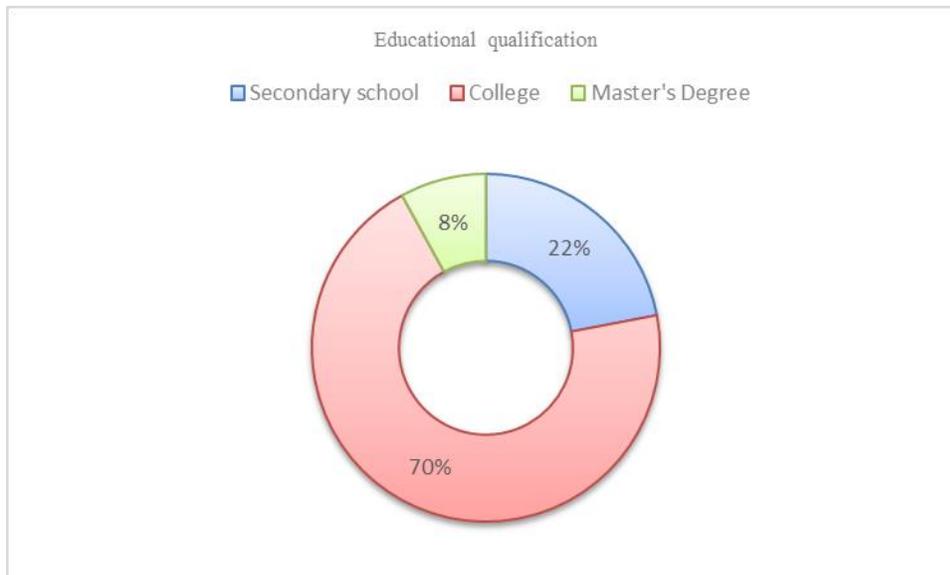


Fig 3: Educational qualification

Time teachers spend with students daily

The respondents were asked to indicate the time they spent with their students with autism on the daily. More than half the sample (61%) indicated that they spent between 2 hours and four hours with their student daily. Also, 24% of the teachers revealed that they spent more than 4 hours with the students daily. The remaining 15% showed that they spent less than 2 hours with their students daily. See figure 4 below.

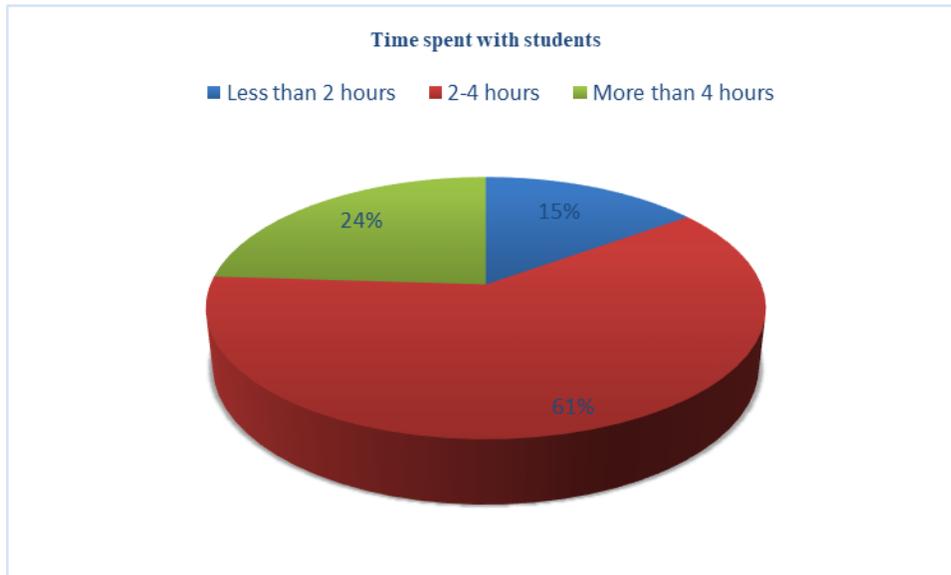


Fig 4: Time spent with students

Teaching Strategies Used

The questionnaire offered four choices for special education strategies commonly used by teachers in Saudi Arabia. According to figure 5 below, 40 teachers use baby steps technique while 37 use the hands on technique. Moreover, while 15 indicated that they use the group learning approach, 8 revealed that they blended all of the above techniques in their classes. See figure 5 below.

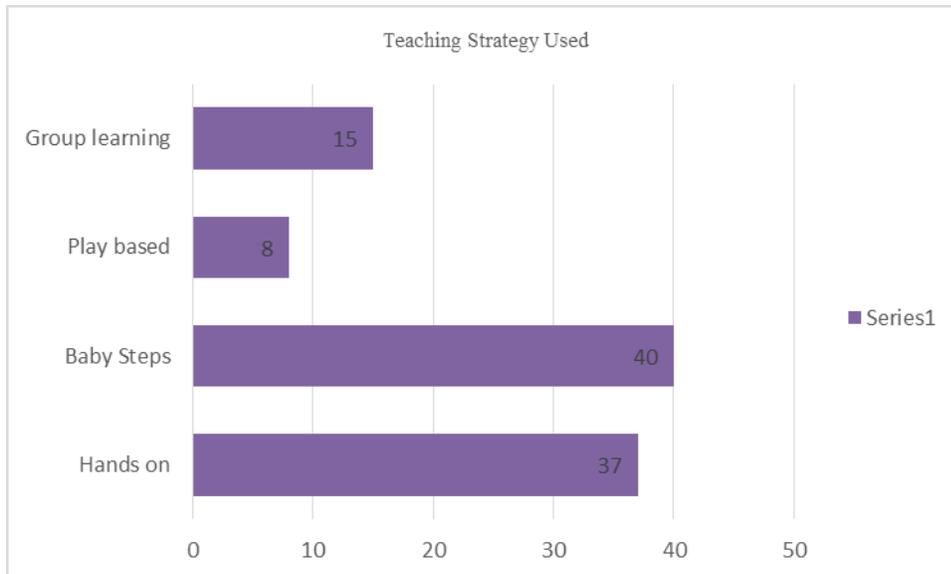


Fig 5: Teaching strategies used

Descriptive Analysis

Special Education for Students with Autism

The likert scale is used in quantitative research method to assess participant attitudes concerning various phenomena within a study. The respondents revealed that they believed the government is committed to improving the special education for intellectually disabled learners with a mean value of 3.3400. Again they showed that schools lacks suffice funds to sustain the special education curriculum with a mean score of 3.3000. Next they indicated that they lacked sufficing knowledge/training about the learning strategy with an average score of 3.2000. Finally, they demonstrated that they have attempted different strategies to evaluate their practicality and suitability for each student with a mean score of 3.2100.

	N	Minimum	Maximum	Mean	Std. Deviation
I lack sufficing knowledge/training about the learning strategy I am trying to implement	100	1.00	5.00	3.2000	1.31041
The schools lacks suffice funds to sustain the special education curriculum	100	1.00	5.00	3.3000	1.32192
I believe the government is committed to improving the special education for intellectually disabled leaners	100	1.00	5.00	3.3400	1.38695
I have attempted different strategies to evaluate their practicality and suitability for each student	100	1.00	5.00	3.2100	1.29720
Valid N (listwise)	100				

Table 1: Special education

Learning Outcomes

The next half of the Likert scale sought to determine participants' opinions regarding learning outcomes. The respondents showed that positive learning outcomes helped students develop enthusiasm in the learning process with a mean value of 3.3800. They revealed that students responded positively to special strategies as compared to the conventional formal approach with a mean score of 3.3000. Next they indicated that they received positive reviews from parents regarding students' performance with a mean value of 3.3200. See table 2 below.

	N	Minimum	Maximum	Mean	Std. Deviation
My students respond positively to special strategies as compared to the conventional formal approach	100	1.00	5.00	3.3000	1.32192
I receive positive reviews from parents regarding students' performance	100	1.00	5.00	3.3200	1.35498
I believe the strategies I use have a positive impact on the students	100	1.00	5.00	3.3200	1.30175
Positive learning outcomes help students develop enthusiasm in the learning process	100	1.00	5.00	3.3800	1.30097
Valid N (listwise)	100				

Table 2: Learning Outcomes

Inferential Analysis

Correlational Analysis

Correlational analysis is the presentation and determination of the relationship between the independent people with cognitive disabilities and dependent people with cognitive disabilities as variables to measure their learning outcomes. The values of correlation range from -1 to +1. The interpretation of the values depends on the preceding mathematical sign. That is, positive signs denote positive association between the independent and the dependent variable and vice versa. The software analysis produced a positive correlation coefficient of 0.990, and a p-value of 0.000, which signified that the IV had a positive relationship with the DV. Moreover, the results were statistically significant as indicate by the level of significance. Table 3 presents the correlational findings.

		IV	DV
IV	Pearson Correlation	1	.990**
	Sig. (2-tailed)		.000
	N	100	100
DV	Pearson Correlation	.990**	1
	Sig. (2-tailed)	.000	
	N	100	100

Table 3: Correlation analysis

Regression Analysis

A simple bivariate linear regression was conducted to determine the relationship between the explanatory variable and the outcome variable. The bivariate regression was presented as illustrated below:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where; Y= Learning Outcome, X1 = Special Education, β_0 = Constant Term and β_1 , = Beta Co-efficient and ε = Error Term

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.990 ^a	.979	.979	.18678

Table 4: Model summary

In itself, the R-squared is a measure of variance existing between the independent and the dependent. Particularly, it depicts the effect the independent variable deals on the dependent variable.

The study recorded values of 0.990 and 0.979 for R and R-squared respectively. As a percentage, R-squared denotes a 97.9% influence on the dependent variable as determined by the dependent variable (a 97.9% variation on crime). The remaining percentage represent elements that are beyond the study's control. Table 4 above illustrates these findings.

Variance Analysis

The analysis of variance or ANOVA facilitates the assessment of the difference between the mean values of variables in a study. The study recorded a sum of squares of 163.066, a residual score of 3.419 and df score of 100, mean squares score of 163.066, F value of 4674.388, and an error of 0.035. The p-value recorded in the ANOVA reveals an element of significant difference in the data set, which rejects the null hypothesis. The study consequently, presents that there exists a positive relationship between the special education and learning outcomes. Table 5 below shows the ANOVA results.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	163.066	1	163.066	4674.388	.000 ^b
	Residual	3.419	98	.035		
	Total	166.485	99			

Table 5: ANOVA results

Regression Coefficient

The regression coefficient illustrates the relationship between the IV and the DV. Essentially, it shows if the variables are positively or negatively related. It reveals that unit change in the IV inspires unit (equal) alteration in the DV. The regression coefficient recorded in this analysis was 0.981 and the constant value was 0.130.

Both values generate a regression equation of $Y = 0.130 + 0.981X$. The positive values suggest a positive relationship between substance abuse and crime. Table 6 below shows the results.

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	.130	.050		2.589	.011
	IV	.981	.014	.990	68.369	.000

Table 6: regression co-efficient

Discussion

The findings show that there exist a positive relationship between the type of education for children with autism and learning outcomes. A positive correlation is suggestive of linear association where a change in one variable instigates an increase in another. Individuals' engagement in physical movement is impacted by the fabricated, characteristic and social situations in which individuals live just as by close to home factors, for example, sex, age, capacity, time and inspiration. The manner in which individuals sort out urban communities, plan the urban condition and give access to the regular habitat can be a consolation or an obstruction to physical movement and dynamic living. Different boundaries exist in the social situations inside which individuals work, learn, play and live. Physical movement is a fundamental part of any system that means to address the issues of stationary living and corpulence among kids and grown-ups. Active living adds to individual physical and psychological wellness yet in addition to social union and network prosperity. Open doors for being genuinely dynamic are not constrained to sports and sorted out entertainment; openings exist all over the place - where individuals live and work, in neighborhoods and in instructive and wellbeing foundations.

The Healthy Cities and urban administration program have concentrated on how neighborhood governments can actualize solid urban wanting to produce conditions that advance open doors for physical action and dynamic living. This production introduces the best accessible proof on physical movement in the urban condition and makes recommendations for arrangement and practice dependent on that evidences. Administrators and other chosen city authorities can utilize this data to address the necessities and commitments of all residents in various settings of regular day to day existence with the points of guaranteeing fair and exhaustive endeavours to advance physical movement and dynamic living.

Conclusion

The study sought to establish the role of special education strategies for individuals with intellectual disability in influencing learning outcomes in Saudi Arabia. The investigation assumed a quantitative approach and used a structured questionnaire as the primary instrument for data collection. The survey was based in learning institutions in Saudi Arabia. The examination sought to determine the effect of the leaning strategies from the perspective of tutors who partake in the implementation of various special education strategies including baby steps, play based, hands on, and group leaning. The findings reveal that most teachers utilised the baby steps technique, a mental approach which uses various scaffolds to help the learner achieve the desired set of outcomes. Further, the study revealed that learners realise better learning outcomes when the appropriate techniques are applied in the learning process.

The study recommends that relevant authorities in Saudi Arabia should emphasise the complete implementation of special techniques in the leaning process for all children with autism to enable them develop into responsible adults.

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