

RESEARCH ARTICLE

An investigation on the impact of vedic mathematics on higher secondary school student's ability to expand mathematical units

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Abstract

Vedic mathematics strongly influences high school students' capacity to extend mathematical units. The study compares Vedic arithmetic formulae to current mathematical science. The study's technique is based on a retrospective-to-prospective design using past-to-present Vedic mathematics. The study collects data from both primary and secondary sources. Primary data were collected from 220 high school students using a planned schedule in pre- and post-Vedic mathematical phenomena. Primary data is evaluated using a regression model and paired sample t-test to further understand how Vedic mathematics might help students increase mathematical units in a globalized environment. The present study would assist academicians, policymakers, and researchers to better use Vedic mathematics formulae because the findings interpret the link between Vedic mathematics and high school students' capacity to extend mathematical units.

Keywords: Ability, Higher secondary school students, Implication of Vedic mathematics, School, Vedic Mathematics.

Introduction

Vedic mathematics is the symbol of a long history of Indian civilization because India is the land of Aryabhata. After all, the modern mathematics technique is the result of the ancient practice of the formula of mathematics. In these consequences, there is a need to investigate the impact of Vedic mathematics in the context of retrospective to prospective study manner because it is well known that Vedic mathematics is the result of the contribution of research-based knowledge of *Rishis* and *Munis* in the development of Vedic mathematics. Therefore, this study follows the impact of Vedic mathematics on higher secondary school students' ability to expand mathematical units from its past to the present with the future impact of Vedic mathematics on the modern era of mathematics

(Boaler, 2013). In the sense of retrospective to prospective study design can better oversee the importance and impact of Vedic mathematics because the present importance of mathematics is based on Vedic mathematics, but the problem is that our modern educational system is ignoring the importance of Vedic mathematics (Ramalatha *et al.*, 2009). Therefore, the researcher should try to determine the importance of Vedic mathematics in the sense of retrospective to prospective study design by investigating the impact of Vedic mathematics on higher secondary school students' ability to expand the mathematical unit. Researchers can easily understand the importance of Vedic mathematics from past to present and the plan for future mathematics in the context of Vedic mathematics. Therefore, the present study moving forward on the importance of Vedic mathematics on the ability of higher secondary school students because it is well known that the modern era of student education is based on the English medium education through CBSE and ICSC board, but there is a need to give importance of Vedic mathematics in the higher secondary school students ability to expand the mathematical unit.

There is a long debate on the importance of Vedic mathematics because it is observed that the modern educational system is based on the western approach to mathematics while India has their mathematics formula based on the Vedic tradition of mathematics like the principles of *Aryabhata* is so important in the modern era of education (Tirtha & Agarwala, 1992). The importance

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How to cite this article: Pathak, R., Kumari, S. (2023). An investigation on the impact of vedic mathematics on higher secondary school student's ability to expand mathematical units. *The Scientific Temper*, 14(1):106-114

Doi: 10.58414/SCIENTIFICTEMPER.2023.14.1.13

Source of support: Nil

Conflict of interest: None.

of Vedic mathematics is based on the high-speed Vedic technique for improving the ability of students in the field of mathematics because it is found that the formula of Vedic mathematics is based on Vedic formulas given by our *Rishis* and *Munis* in the ancient period (Kumar & Charishma, 2012). It is well known that the Vedic mathematics of ancient India was based on the multiple design method because it is observed that the importance of Vedic mathematics led to the mechanisms of the modern educational system of mathematics in India. Therefore, there are cordial linkages between Vedic mathematics and modern mathematics based on the multiple design method (Tiwari *et al.*, 2008). A multiply-accumulate unit can improve the importance of Vedic mathematics in the modern era of mathematics because it is observed that formulas of Vedic mathematics are working as an innovative approach to the modern formula of mathematics based on the Vedic mathematics (Jaina *et al.*, 2011). The implementation of the Vedic formula is based on the invention and innovation method of the importance of Vedic mathematics in the context of the research base method of ancient India. In this study, it is observed that the implementation of Vedic mathematics leads to the digital signal processing (DSP) method in the modern pattern of mathematical formulas (Itawadiya *et al.*, 2013). Therefore, based on the above prescribed concise part of the introduction, it may be realized that there is the significant importance of Vedic mathematics in the modern educational system in the context of mathematics in a globalized world. Therefore, it needs to focus more on the importance of Vedic mathematics in India in the context of retrospective to prospective study design.

Based on the above prescribed concise introduction about the importance of Vedic mathematics toward higher secondary school students' ability to expand the mathematical unit. It can be realized that there are more important values and formulas of Vedic mathematics in the context of globalization because it is observed that Vedic mathematics is based on logical sequences of innovation methods of ancient India. It is also observed that the modern era of the educational system is facing new types of formulas and values for the modernization of the educational system. Therefore, it is important to give more attention to the importance of vedic mathematics. The importance of vedic mathematics can be better reviewed by study design of retrospective to prospective study design method because there is a need to give more attention to the history of vedic mathematics by modifying the syllabus of modern mathematics as well as a future aspect of mathematics. In these consequences, there are lot of challenges in vedic mathematics because it is observed that there is no space for vedic mathematics in students' education, while vedic mathematics can ensure the importance of vedic formulas. The importance of Vedic mathematics is the subject of

discussion for our academicians, researchers, and students because it is observed that there is lot of research has been done in the field of vedic mathematics. Therefore, the researchers should analyze these reviews to give importance to formulas and equations of vedic mathematics to build up a way to investigate the importance of vedic mathematics on higher secondary school students' ability in the context of numerical mathematics. Therefore, it can be realized that there is a need to give a logical review to investigate the importance of vedic mathematics for a better interpretation of vedic mathematics (Thapliyal & Srinivas, 2005).

Therefore, it is important that vedic mathematics may be discussed in the review of related literature about the nexus of the modern system of mathematics and vedic mathematics in ancient India. It can be realized that there are cordial linkages between vedic mathematics and the modern system of mathematics in the modern era in the context of students' mathematical ability. In these contexts, a section of the literature review is focused on investigating the impact of vedic mathematics on higher secondary school students' ability to expand mathematical units. Implementing vedic mathematics can increase students' ability with the importance of vedic Mathematics in students' school education syllabus.

Review of Literature

Based on the above short, summarizing introduction part, it can be realized that there is a need to give more importance to the significance of vedic mathematics to investigate the impact of vedic mathematics on higher secondary school students' ability to expand the mathematical units. Therefore, it is important to emphasize the importance of vedic mathematics in the modern era of globalization. Our modern educational systems ignore the nexus of the impact of vedic mathematics on higher secondary school students' ability to expand mathematical units. In these contexts, our plan should focus on the importance of vedic mathematics because it is our indigenous source of knowledge and a symbol of ancient India. In these consequences, vedic mathematics can rebuild our modern knowledge-based system in the context of the available literature of ancient India, like the theory of Aryabhata. As well as it is well known that there is a need to establish a linkage between the literature of vedic mathematics and modern mathematical literature in the context of globalization because the indigenous source of knowledge is the core of the development of the impact of vedic mathematics on higher secondary school student's ability to expand the mathematical unit. In these consequences, there is also a need to give importance to vedic mathematics in the education of students regarding connecting their mathematical ability in the modern era of modern teaching Mathematics. In these consequences, the literature review

is focused on the importance of vedic mathematics as well as its social implication in the modern era of globalization because our society is ignoring the impact of vedic mathematics due to globalization.

Therefore, the next section of the review of literature broadly advocated the impact of vedic mathematics on higher secondary school student's ability to expand mathematical units in the context of globalization as well as the nexus of the modern era of mathematics and vedic mathematics in the sense of modern updated technology whereby formulas of mathematics are redefined and managing of computer science, but our vedic mathematics is based on Indigenous vedic literature. The importance of vedic mathematics is the result of our Indigenous knowledge of ancient India because there is rich literature about vedic mathematics. Therefore, it is needed to give more attention to the investigation of the impact of vedic mathematics in the sense of the impact of vedic mathematics on higher secondary school student's ability to expand mathematical units in the modern era of knowledge in the context of technology-based education in the sense of globalization. Now it is observed that technology and computer science-based education are giving more importance to the significance of vedic mathematics because modern formulas of mathematics may be redefined and rebuilt in the context of computer science-based mathematics (Saha *et al.*, 2011). It is observed that the design and implementation of an efficient multiplier using Vedic mathematics is an important source of explanation of the importance of Vedic mathematics in the education of mathematics of students in school. In these consequences, there is complexity in the implementation of vedic mathematics with computer science because it is observed that there is a lack of knowledge about indigenous sources of mathematics in modernization-based education in the context of globalization. Therefore, it needs to give more significance and importance to vedic mathematics in the modern school-based education system in India (Rudagi *et al.*, 2011). It is observed that a novel high-speed Vedic mathematics multiplier is an important core regarding the implementation of vedic mathematics in modern computer science-based education in the context of the impact of vedic mathematics on higher secondary school student's ability to expand mathematical units because it is observed that modern computer science-based mathematics is the core of implication of vedic mathematics. It is also well known that the implication of a novel high-speed vedic mathematics multiplier increases the numerical ability of students who are gaining computer science-based education in modern education system-based schools in India (Huddar *et al.*, 2013). It is observed that the importance of vedic mathematics is giving more significance to the design and implementation of two variable multipliers using the Kentucky Centre for Mathematics and vedic mathematics in the modern era

of globalization. There is a social implication for designing and implementing two variable multipliers using the Kentucky Centre for Mathematics and vedic mathematics in IITs and engineering institutions. It is also important that the implication of Vedic mathematics can manage the problems of society through the nexus of Vedic mathematics and modern computer science-based education. These consequences can increase the numerical ability of students in modern science-based education (Sriraman & Prabhakar, 2012). Implementation of Vedic mathematics on efficient multipliers based on Vedic mathematics using the EDA tool increases the implementation of vedic mathematics in modern computer science-based education in IITs. Therefore, it should be given focused on rethinking and redefining the indigenous source of vedic mathematics in modern computer science-based education in a globalized world because it is the demand of time and investigates the nexus of vedic mathematics and computer science-based education (Verma & Mehta, 2012).

Based on the above concise description of the literature review, it can be emphasized that there is a significant impact of vedic mathematics on higher secondary school student's ability to expand mathematical units in modern computer science-based mathematical education in schools of India. It is also observed that the importance of vedic mathematics is increasing students' numerical and mathematical ability because the indigenous source of knowledge is the core of vedic mathematics in the Modern era of knowledge. However, vedic mathematics can oversee and manage social problems with the nexus of Vedic mathematics and computer science-based education for higher secondary school students. It is realized that the importance of vedic mathematics is based on the research-based study of our *Rishis* and *Munis* in ancient India as well, and it is well known that vedic-based literature should be revisited and revised in the context of an investigation of the impact of vedic mathematics in the modern era of education. Therefore, the next section of the study focuses on the methodology of investigating the impact of vedic mathematics on higher secondary school students' ability to expand mathematical units. Hence, the methodology of the study focused on the retrospective to prospective study design with the importance of vedic mathematics from its past to present and future perspective for the implication of vedic mathematics regarding increasing the numerical and mathematical ability of higher secondary school students (DeBellis, & Goldin, 2006). Therefore, it is observed that a prescribed concise review of literature gives a broader sense of investigating the impact of vedic mathematics on higher secondary school students' ability to expand the mathematical unit.

- A review of the literature shows that the impact of vedic mathematics should be analyzed in the context

of higher secondary school student's ability to expand their mathematical unit because findings of the review of the literature show that there is a lack of such kinds of literature that give significance to the impact of vedic mathematics on higher secondary school students ability to expand the mathematical unit.

- Therefore, it is needed to give more attention to empirical-based studies to investigate the impact of vedic mathematics on higher secondary school students' ability to expand mathematical units in the context of the modern mathematics education system in a globalized world.

Methodology: Objectives and Analytical Framework

Based on the above-mentioned literature review, it can be emphasized that there is a long debate in the investigation of the impact of vedic mathematics on higher secondary school students' ability to expand mathematical units. A review of the literature shows a social implication of vedic mathematics in the field of higher secondary school students' ability to expand the mathematical unit. In these consequences, it is observed that there is a positive impact of vedic mathematics on the mathematical ability of students in the present scenario of mathematical education in a globalized world. Additionally, the section of the literature review shows that the principles and formulas of vedic mathematics are being functioned by computer science, and these consequences are increasing the ability to expand mathematical units in modern education based on mathematics in a globalized world. It is also observed that there are lots of challenges regarding the implication of vedic mathematics in the modern era of education, but there is a need to investigate the impact of vedic mathematics on higher secondary school student's ability to expand mathematics units should be investigated through retrospective to prospective study design from its past to present with the future implication of importance of vedic mathematics.

In these consequences, there are the following research questions:

- What is the history of Vedic mathematics?
- What is the correlation between vedic mathematics and higher secondary school students' ability to expand mathematical units?
- How does vedic mathematics impact higher secondary school students' ability to expand mathematical units?
- How does the student's ability to expand mathematical units of vedic mathematics in pre- and post-scenario?

Based on the above-prescribed research questions, there are the following objectives in the context of an investigation of the impact of vedic mathematics on higher secondary school student's ability to expand mathematical units:

- To examine the impact of vedic mathematics on higher secondary school students' ability to expand mathematical units.
- To analyze the pre- and post-higher secondary school student's ability to expand mathematical units of vedic mathematics.
- To study vedic mathematics on higher secondary school student's ability to expand mathematical units.
- To give suggested prescribed policies about the better implementation of vedic mathematics in the modern era of education with its future perspective.

Therefore, the prescribed objectives give importance to vedic mathematics from its ancient history to the present scenario of computer science-based mathematics, as well as give away for the better implication of vedic mathematics with modern mathematics in the context of the social implication of vedic mathematics.

Technique For Data Collection

The data collection technique is based on the quantitative study design by conducting a field visit to a higher secondary school in 2022. The primary data was collected by a total of 220 higher secondary school students in pre- and post-scenario investigation of the impact of Vedic mathematics on higher secondary school students' ability to expand mathematical units. Additionally, the primary data has been collected by a well-developed structured schedule according to the nature of research questions and objectives according to ethics and principles of research without any biases.

Regression Model

The regression model justifies the study's first objective because it is a crucial tool for the parametric test of statistical procedures as well, as it is more relevant in business, economics, and other social science disciplines. It refers to the statistical techniques of modeling relationships between variables. Another important characteristic of the regression model is that Regression analysis provides a mathematical relation that could be used to forecast a single variable's value based on the values of the other variables, known as the independent variables.

In the regression model, the correlation coefficient and scatter plot give broad ideas about relationships among variables and may suffice for a few purposes. The dependent variable has been assessed on a continuous ratio scale, while the independent variables might be continuous, categorical, or a combination of both. In this study, dependent and independent variables, where higher secondary school student's ability is the dependent variable, and the impact of Vedic mathematics is the predictor variable as independent variables. In the study, the regression model gives a better picture of the investigation of the impact of vedic mathematics on higher secondary school students

ability to expand mathematical units because there are cordial linkages between vedic mathematics and the ability of higher secondary school student's education in school.

Paired Sample T-Test

The second objective of this research has been justified by paired sample t-test in the context of the pre-and post-phenomena of the impact of vedic mathematics on the ability of higher secondary school students to expand the mathematical units. Paired sample t-test examines the difference in the mean of dependent samples. One of the two basic experimental designs is employed to study the differences between the two groups. The paired sample t-test assumption of paired samples t-test is the same as those of the independent sample t-test, except that in paired sample t-test, the samples are not independent.

- The dependent variable is measured on a ratio or interval scale.
- The sample mean is normally distributed.
- Respondents are selected randomly.
- The study now discusses how paired sample t-tests have been conducted in PASW. In our sample data set, the information related to the impact of vedic mathematics on the ability of higher secondary school students in pre- and post-phenomena. Pre-phenomena indicate the impact of Vedic mathematics on higher secondary school students' ability before the intervention of Vedic mathematics, while post phenomena situations indicate the impact of Vedic mathematics on higher secondary school students' ability to expand mathematical units. In these consequences, there are the following two hypotheses:

$H_{0=}$ There are no differences in the mean impact of Vedic mathematics on higher secondary school students' ability to expand their mathematical before intervention in Vedic mathematics.

$H_{1=}$ There are differences in the mean of the impact of vedic mathematics on higher secondary school student's ability to expand their mathematical before intervention in Vedic mathematics.

In these consequences, paired sample t-test provides a broad picture of the impact of Vedic mathematics on higher secondary school students' ability to expand the mathematical units. Therefore, in this study, the data set of higher secondary school students is a dependent sample, and the sample size is equal in pre- and post-phenomena in paired sample t-tests. Two samples are said to be dependent if each member of one sample relates to the member of the other sample.

Result

First Objectives

Regression Model

The table shows that PASW indicates the simple regression model. Here, R-value is 0.850, where R is the square root of the R-Squared square. R-Square is equal to.723, indicating a 72.3 percent variation in the dependent variables. The adjusted R square value is 0.756, which aims to present a more accurate image of the regression value's fit when estimating the population's R-squared. Higher secondary school students' ability is the dependent variable, and the impact of Vedic Mathematics is the predictor as the independent variable (Table 1).

The Sum of the square relates to three sources of variance -Total, Model, and Residual. R-Square is calculated by dividing the Regression Sum of Squares by the Total Sum of Squares. Here, the values of the sum of Squares are equal to 4724.056 for regression and the sum of squares equal to 1808.118 for residual, and the value of the mean square for the regression and residual, respectively, are 4724.056 and 8.332.The F-value is equal to 566.954, and the significant value of 0.00, which is less than 0.05, indicates a substantial impact of Vedic mathematics on higher secondary school students' ability to expand mathematical units (Table 2).

The table of coefficients shows the value t and significance; it indicates that there is a significant impact of vedic mathematics on higher secondary school student's ability to expand mathematical units (Table 3).

Table 1: Model Summary

<i>Model Summary</i>				
<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	.850a	.723	.722	2.88658

a. Predictors: (Constant), Vedic Mathematics.

Table 2: ANOVA

<i>ANOVAa</i>						
<i>Model</i>		<i>Sum of Squares</i>	<i>Df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
1	Regression	4724.056	1	4724.056	566.954	.000b
	Residual	1808.118	217	8.332		
	Total	6532.174	218			

a. Dependent Variable: Higher secondary school student's ability, b. Predictors: (Constant), Vedic Mathematics.

Table 3: Coefficients

<i>Coefficients^a</i>		<i>Unstandardized coefficients</i>		<i>Standardized coefficients</i>	<i>T</i>	<i>Sig.</i>
		<i>Std. Error</i>	<i>Beta</i>			
1	(Constant)	3.353	.817		4.105	.000
	Vedic Mathematics	.937	.039	.850	23.811	.000

a. Dependent Variable: Higher secondary school student's ability.

Table 4: Description of Statistics

<i>Paired Samples Statistics</i>		<i>Mean</i>	<i>N</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
Pair 1	Pre-Test	4.2009	219	1.49795	.10122
	Post-Test	7.2100	219	1.82281	.12317

Table 5: Paired sample correlation

<i>Paired Samples Correlations</i>		<i>N</i>	<i>Correlation</i>	<i>Sig.</i>
Pair 1	Pre-Test & Post-Test	219	.050	.462

Based on the above analysis, it can be realized that there is a significant impact of Vedic mathematics on the ability of higher secondary school students to expand to the mathematical unit in a broader sense through the regression model because the regression model advocates better implication of prediction-based impact on higher secondary school student's ability to expand the mathematical unit. In these consequences, it is observed that the significant impact of Vedic mathematics on higher secondary school student's ability is influenced by the socio-economic profile of students like their age, brain IQ, economic status of their parents, perception of parents and their students about the importance of Vedic mathematics in the context of a process, determinants, and consequences of the importance of Vedic mathematics in the consequences of retrospective to the prospective manner of study design. In this study, it is observed that the importance of Vedic mathematics is reconstructed and redefined in computer science-based mathematics in modern education-based systems of schools, whereby school students have the capability to find out the importance of Vedic mathematics in the context of expanding the mathematical unit in computer science-based mathematics. Additionally, there is a significant role of Vedic mathematics in developing a better understanding of modern mathematics based on the retrospective to prospective study design from its past to present with future goals of the importance of Vedic mathematics.

Second Objective

This table shows that the mean of student ability in the pre-test (before the introduction of Vedic mathematics) is 4.2, and the mean of post -the test (after the intervention of Vedic mathematics) is 7.2; it shows that the importance of Vedic mathematics increased the higher secondary school

student's ability expands to the mathematical unit in pre and post scenario (Table 4).

This table shows the correlation between pre and post-test in the context of the impact of Vedic mathematics on higher secondary school student's ability to expand the mathematical unit. The value of the correlation is .050, which indicates the correlation between pre- and post-phenomena in the context of the impact of vedic mathematics on higher secondary school student's ability to expand mathematical units. The significant value is .462, which is more than the p-value of 0.05, which indicates an insignificant statistical correlation between the pre-and post-situation introduction of Vedic mathematics in pre- and post-phenomena (Table 5). This table shows differences in the mean of the pre-test (before introducing vedic Mathematics) and post-test (after the introduction of vedic Mathematics), which is -3.00913, and the value of standard deviation is 2.30076 as well the value of standard error is .15547. The table generated the value of t- statistics of -19.335, and the associated significance value is .000, which is less than the p-value of 0.05. Therefore, we reject the null hypothesis and can say that there is an improvement in the ability of higher secondary school students to expand mathematical units. After the introduction of vedic mathematics compared to pre-tests -before the intervention of vedic mathematics in higher secondary school students' ability to expand mathematical units (Table 6).

Based on the analysis of the results shows that ability to impact Vedic mathematical units increased among higher secondary school students' ability to expand mathematical units after introducing Vedic mathematics compared to the pre-test situation. Paired sample t-test indicates that the numbers of higher secondary school students were dependent variables and the same numbers in pre- and post-

Table 6: Paired Sample t-Test

Paired samples test		Paired differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence interval of the difference				
					Lower	Upper			
Pair 1	Pre-Test - Post - Test	-3.00913	2.30076	.15547	-3.31555	-2.70271	-19.355	218	.000

phenomena in the case of the impact of vedic mathematics. There are few limitations of the paired-sample t-test because the effect of Vedic mathematics may be influenced by the socio-economic conditions of higher secondary school students as well as the educational environment of the school. In these consequences, it is observed that ability of the higher secondary school student's ability to expand mathematical units is the result of attitudes, beliefs, cultural values, and norms of student and their parents about Vedic mathematics in the context of globalization. There is a lack of awareness among higher secondary school students about the importance of Vedic mathematics.

Third Objective

Analysis of results through ANOVA and paired sample t-test shows that there are few limitations to the implication of both tests. In these consequences, the impact of Vedic mathematics can be analyzed by content analysis of related literature about the impact of Vedic mathematics on higher secondary school student's ability to expand the mathematical units. This section focuses on the importance of Vedic mathematics under the approach of retrospective to prospective study design in the context of the above-prescribed objective about the impact of Vedic mathematics on the ability of higher secondary school students.

The design and implication of the two variables multiplier method is an important subject of discussion in the context of Vedic mathematics's impact on students' ability. This study shows that there is a positive correlation between the implications of Vedic mathematics and computer science-based mathematical education in higher secondary school students (Sriraman & Prabhakar, 2012). Another study shows that the importance of Vedic mathematics has been implemented by high-speed multiplier Vedic mathematics in computer science-based mathematics. It is also observed that computer science-based mathematical education improves the mathematical ability of higher secondary students in school (Kahar & Mehta, 2017). In these consequences, another study discusses the role of the performance of ability of students in the field of the implication of vedic mathematics in the modern era of education because of the nexus of vedic mathematics and computer science-based education improved the importance of vedic mathematics (Kasliwal *et al.* 2021). VLSI implementation of RSA encryption system using ancient Indian vedic mathematics increased students' ability toward

the importance of vedic mathematics in ancient India to modern phenomena of computer science-based education system in India in the context of globalization (Thapliyal & Srinivas, 2005). In this perspective, another important study about low power high speed of 16x16 bit multiplier using vedic mathematics established a nexus between modern computer science-based education and vedic mathematics in the globalized world. These consequences showed that numerical ability increased the numerical power of students (Bathija, 2012)

Therefore, based on the above concise description of the impact of vedic mathematics, it can realize the following summary points:

- There is a significant correlation between the importance of vedic mathematics in the higher secondary school student's ability to expand mathematical and modern computer science-based education systems. These consequences developed a cultural bonding between the ability of higher secondary school students and their mathematical knowledge in the context of retrospective to prospective study manner of study design. This approach better emphasizes the role of education of ancient India from its past to present with future agenda of study.
- In these perspectives, the role of computer science-based education is so important for enhancing the role of student's ability toward vedic mathematics in the sense of exploration of the importance of vedic mathematics regarding rethinking and rebuilding the mathematical formulas of vedic mathematics in a globalized world as well as it is the demand of time to reshape their traditional indigenous sources of vedic mathematics in the perspective of globalization.

Discussion

Based on the above result part, it can be discussed that there is a significant impact of Vedic mathematics on higher secondary school students' ability to expand mathematical units. Based on this finding, it can be concluded that there is a retrospective to the prospective relationship between the importance of vedic mathematics and the modern mathematics system of higher secondary school students' ability to expand mathematical units. In these consequences, it can be forwarded that the modern mathematical education system of mathematics is based on modification and updating the form of vedic mathematics in

the context of globalization. Therefore, it can be mentioned that there is a need to develop a mechanism between the importance of vedic mathematics and the modern system of mathematical units in India. In these consequences, it should be analyzed in the form of past to present with future agenda of vedic mathematics. In these consequences, it is realized that the modern educational system regarding promoting the importance of vedic mathematics. Its importance on higher secondary school student ability to expand the mathematical unit can be forwarded. It is based on the approach of sustainable education because it is well known that the importance of vedic mathematics is based on conservation and promoting the importance of the Vedic education. In these consequences, it is also important to mention that it is based on promoting the importance of vedic mathematics on higher secondary school students' ability to expand mathematical units. In this research work, it is also found that there is a positive role of the introduction of the importance of vedic mathematics on higher secondary school students' ability compared to before the introduction of vedic mathematics. These consequences show that the mathematical ability of higher secondary school students is increasing due to vedic mathematics' importance in modern educational mathematics. Therefore, it can be forwarded that the ancient education system of India is so relevant in promoting the mechanism of the modern educational system of India as well, as the form of the ancient educational system of mathematics is improving the modern educational system and higher secondary school student's ability to expand mathematical unit in post scenario after the introduction of Vedic mathematics. These perspectives are more relevant in conserving and protecting the ancient cultural importance of Vedic mathematics in the context of the modern educational system whereby the student is interacting with modern and updated mathematics syllabi because modern mathematics gives big space to Vedic mathematics.

It is well known that India has a rich cultural heritage of ancient educational systems, and the importance of the educational system is so relevant in promoting the modern mathematics system on higher secondary school students' ability to expand mathematical units of vedic mathematics. These consequences led to a sustainable educational system in modern India whereby the importance of Vedic mathematics is based on the well-developed correlation between ancient Vedic mathematics and the modern system of Vedic mathematics. Therefore, it can be discussed that there is a need to develop such mechanisms where the ancient form of vedic mathematics must promote the modern educational system of mathematics. It gives significant importance to the higher secondary school student ability to expand the mathematical unit. Based on the above-prescribed discussion part, it can be concluded

that there is significant importance of Vedic mathematics on the educational ability of higher secondary school students to expand the mathematical unit. Therefore, it is also important to discuss that it is the result of the positive role of the educational system of ancient India and its role in promoting new forms and updating the syllabus of mathematical education. In these perspectives, it is realized that it gives a more realistic picture of the importance of vedic mathematics in the manner of retrospective to the prospective manner of study design based on the past to present with future agenda of the association between vedic mathematics and its impact on higher secondary school's student ability to expand the mathematical unit. In these consequences, it is important to discuss the need to develop mechanisms based on ancient India's ancient Vedic mathematics educational system with new forms of the modern educational system in modern schools of India. Therefore, it is important to finalize that it should be based on the agenda of sustainable development of an educational system of mathematics in the context of ancient to modern India with the future aspect of mathematical education in India.

Conclusion And Recommended Policies

The above concise description of the impact of vedic mathematics on the ability of higher secondary school students to expand to the mathematical unit shows that there are cordial linkages between Vedic mathematics and the ability of higher secondary school students in the context of the modern era of globalization. Additionally, a computer science-based education system leads the mechanisms of the importance of vedic mathematics from its past to present with future agenda. In these consequences, it may be realized that ancient Vedic-based mathematical education is the core of modern mathematics in schools of students in a globalized world. The process, determinants, and consequences of vedic mathematics gives a broad way for understanding the implication of vedic formula in computer science-based education from the perspective of retrospective to prospective study design because this approach better advocate the role of importance of vedic mathematics in the sense of redefining and rethinking about the importance of vedic mathematics in the sense of modern computer science-based education in a globalized world. The pattern of a globalized world is the result of the renovation of our indigenous source of knowledge based on ancient India, as well as reshaping the indigenous source of expertise in the context of its past to present with the future agenda of mathematical science. As a consequence, there are the following recommended policies:

- There is a need to start the review of Vedic mathematics in the sense of implication of the Vedic formula for the solution of human problems for better utilization

of indigenous sources of knowledge in the context of retrospective to prospective study design.

- Secondly, there is a need to give more attention to reshaping and redefining the importance of Vedic mathematics in the context of computer science-based education in the globalized world. Therefore, it may be re-evaluated, reshaping Vedic mathematics's importance.

Acknowledgment

At the opening of my research paper, I would like to express my profound gratitude to everyone who has assisted me in this quest. I would like to express my heartfelt gratitude to our research supervisor and our principal for providing us with the opportunity to create research paper on the topic 'an investigation of the impact of vedic mathematics on higher secondary school student's ability to expand mathematical units' which allowed me to conduct an extensive study and learn about several new things. I also express my heartfelt thanks to my parents and family members, who have supported me morally and financially. Finally, my thanks go to all my friends who provided excellent advice and direction for completing my research paper. Cooperation and constructive criticism were beneficial to them. Finally, I Would like to thank everyone who has already been recognized.

Declaration of Interest Statement

No conflict of interest exists.

We wish to confirm that there are no known conflicts of interest associated with this publication, and there has been no significant financial support for this work that could have influenced its outcome.

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