

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

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DATA ANALYSIS

4.1 OVERVIEW OF THE DATA COLLECTION

The data collected through the structured questionnaire was analysed to assess the attitude and awareness of secondary school teachers of Bhopal city towards the Indian knowledge system. The questionnaire used a 5- 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5) and for yes/no type questions, 1 point for yes and 2 points for no, respectively.

The final data set was analysed using Microsoft Excel, and the percentage was calculated.

4.2 ANALYTICAL TECHNIQUES

To understand the central tendency of the responses, the following statistical measures were used:

- MEAN: To calculate the average score for each item and overall sections on attitude and awareness.
- MEDIAN: To identify the middle value in the response distribution, providing insight into the central tendency unaffected by outliers.
- MODE: to determine the most frequently occurring response for each item, helping to identify dominant opinions among respondents.

4.3 DATA INTERPRETATION

4.31 Awareness about the Indian knowledge system

To assess the awareness of secondary school teachers towards the Indian knowledge system, a specific Likert scale item was included. All 50 respondents selected “yes” with the statement “I have heard about the Indian knowledge system”.

	No. Of Respondent	Percentage
	0	0.00%
1	50	100%
Grand total	50	100%

The response indicate complete agreement among all 50 teachers regarding their awareness of the Indian knowledge system. The mean score of 1.00 and mode 1 reflects high level of awareness. Such uniform results imply that secondary school teachers are well informed about the Indian knowledge system.

4.32 Awareness about IKS includes traditional knowledge in areas such as philosophy, mathematics, astronomy, medicine, and the arts:

	No. of respondents	<u>percentage</u>
1	47	94%
2	3	6%
Total	50	100%

The analysis shows that 94% (47 out of 50) of respondents reported awareness about IKS includes traditional knowledge in areas such as philosophy, mathematics, astronomy, medicine, and the arts. The mean score is 1.06, which is very close to 1, indicating strong agreement. The median and mode values of 1 confirm that the most common and middle response was “yes”.

The result reflects a very high level of awareness among secondary school teachers.

4.33 familiar with the concepts of Ayurveda, Yoga as part of IKS:

	No. of respondents	percentage
<u>1</u>	<u>44</u>	<u>88%</u>
<u>2</u>	<u>6</u>	<u>12%</u>
Total	<u>50</u>	<u>100%</u>

Results indicate that 88% (44 out of 50) of secondary school teachers are familiar with the concepts of Ayurveda, yoga as part of the Indian knowledge system. The mean score of 1.12, with median and mode values of 1, suggests that the vast majority of participants selected “yes”. Only 12% remain unaware.

4.34 Awareness of government initiatives promoting the study of IKS:

	No. of respondents	Percentage
<u>1</u>	<u>29</u>	<u>58%</u>
<u>2</u>	<u>21</u>	<u>42%</u>
Total	<u>50</u>	<u>100%</u>

The results show that 58 % (29 out of 50) of the respondents are aware of the Indian knowledge system. The mean score of 1.42, which is closer to 1 and 2, indicates a moderate level of awareness in the sample. Both the median and mode are 1, meaning that the most common response was “yes”. However, the relatively higher mean suggests a notable portion (42%) of teachers lack awareness.

4.35 Familiar with the nep 2020's focus on incorporating traditional knowledge into education:

	No of respondents	Percentage
1	21	42%
2	29	58%
TOTAL	50	100%

The data reveals that only 42% (21 out of 50) of secondary school teachers reported familiar with the NEP 2020's focus on incorporating traditional knowledge into education. The mean score of 1.58 is closer to 2, indicating that “NO” was the more common response overall. The median and mode are both 2, further confirming that the majority of respondents reported a lack of awareness. There is a clear need for awareness-building initiatives.

4.36 Use of textbook related to indian culture and history to gain knowledge about IKS:

	No. of respondents	Percentage
<u>1</u>	<u>40</u>	<u>80%</u>
<u>2</u>	<u>10</u>	<u>20%</u>
Total	<u>50</u>	<u>100%</u>

The results shows that 80% (40 out of 50) of secondary school teachers are using textbook related to Indian culture and history to gain knowledge about IKS. The mean score 1.20, which is closer to 1, indicates a strong positive response. The median and mode values of 1 confirm that the majority selected “yes”.

4.37 Use of online platforms to gain more knowledge about IKS:

	No. of respondents	<u>Percentage</u>
1	31	62%
2	19	38%
Total	50	100%

The results indicates that 62% (31 out of 50) of the secondary school teachers reported using online platforms to gain more knowledge about the Indian knowledge system. The mean value of 1.38 is closer to 1, suggesting positive engagement. The median and mode values of 1 show that the most common and middle response was “yes”. This reflects a moderate-to-high adoption of digital tools for professional learning in this area. However, 38% who are not using online platforms may benefit from targeted training or exposure to digital IKS resources to bridge this gap.

4.38 Use of academic journals and research papers to gain more knowledge about IKS:

	No. of respondents	Percentage
<u>1</u>	<u>28</u>	<u>56%</u>
<u>2</u>	<u>22</u>	<u>44%</u>
Total	<u>50</u>	<u>100%</u>

The results indicate that 56% of secondary school teachers use academic journals and research papers to increase their knowledge about IKS. The mean score of 1.44, being closer to 1, reflects a moderate tendency toward usage. Both the median and mode values are 1, suggesting that “yes” was the most common and middle response. This indicates a moderate level of engagement with scholarly resources. However with 44% are not using such resources.

4.39 Attending workshops and seminars on iks to increase knowledge about IKS:

	No. of respondents	percentage
1	32	64%
2	18	36%
Total	50	100%

The results show that 64% of secondary school teachers have attended workshops or seminars to improve their knowledge of the IKS. The mean score of 1.36 and the median and mode both being 1 indicate that most teachers are positively inclined toward participating in such events. This reflects a good level of professional development activity related to IKS. However, since 36% are not attending such programs, there is room for educational institutions to promote awareness, access, and incentives for broader participation in relevant workshops and seminars.

4.40 Traditional knowledge passed down by family and community as a source to gain knowledge about IKS:

	No. of respondents	percentage
1	34	68%
2	16	32%
Total	50	100%

The data indicates that 68% of the teachers are using traditional knowledge passed down through families and communities to learn about IKS. The mean score of 1.32, with a median and mode of 1, shows a strongly inclination toward “yes”. Both the mode and median are 1, suggesting that the majority of teachers inclined towards “no”.

4.41 Government-provided teacher training program as a source to increase knowledge about IKS:

	No. of respondents	percentage
1	30	60%
2	20	40%
Total	50	100%

When asked whether a government provided teacher training program is necessary to increase knowledge about IKS, 60% of teachers responded yes and 40% responded no. the mean score is 1.4, indicating a general agreement on the need for such programs. The mode and median are both 1, confirming that the most common response was in favour of government supported teacher development for IKS.

4.42 Indian knowledge system is helpful in enhancing student's understanding of traditional knowledge and values:

	No. of respondents	percentage
4	13	26%
5	37	74%
TOTAL	50	100%

The data reveals a strongly positive perception among secondary school teachers regarding the role of Indian knowledge system in enhancing student's understanding of traditional knowledge and values. A total of 74% of respondents strongly agreed, and 26% agreed with the statement. The mean score of 4.74 along with a median and mode of 5, shows a very high level of agreement, indicating that teachers overwhelmingly believe in the educational value of integrating traditional knowledge through IKS.

4.43 IKS in the secondary school curriculum for fostering cultural relevance:

	No. of respondents	percentage
4	13	26%
5	37	37%
TOTAL	50	100%

The data reveals a strongly positive perception among secondary school teachers regarding the role of Indian knowledge system for fostering cultural relevance. A total of 74% of respondents strongly agreed, and 26% agreed with the statement. The mean score of 4.74 along with a median and mode of 5, shows a very high level of agreement, indicating that teachers overwhelmingly believe in the educational value of integrating traditional knowledge through IKS.

4.44 Indian knowledge system on the support of holistic development of students:

	No. of respondents	percentage
4	25	50%
5	25	50%
Total	50	100%

The results show that all respondents either agreed (50%) or strongly agreed that IKS is essential for holistic development of the student. The mean score of 4.50 and median of 4.5 indicate a strong positive perception among teachers. Although there is no single mode, the balanced distribution between agreement and strong agreement suggests broad support with slightly varying levels of enthusiasm.

4.45 Inteeegrating IKS into the exisiting syllabus helpful for fostering creativity among students:

	No. of respondents	Percentage
3	11	22%
5	39	78%
Total	50	100%

The Indian knowledge system fosters creativity among students' received a high level of agreement from respondents. A majority (78%) strongly agreed, while 22% remained neutral. The calculated mean score is 4.56 on a 5- point Likert scale, indicating a strong positive perception. The mode and median values are both 5, confirming that most teachers strongly support the statement.

4.46 Understanding the concept of IKS is necessary to teach respective subject:

	No. of respondents	Percentage
4	25	50%
*5	25	50%
Total	50	100%

The statement 'understanding of IKS is helpful to teach a particular subject' received uniformly positive responses. Half of the respondents (50%) strongly agreed, and the other half (50%) agreed. The mean rating is 4.5 on a 5- point Likert scale, indicating a high level of agreement. The median value is also 4.5, and the distribution is bimodal with modes at 4 and 5, reflecting a consensus in favour of the statement.

4.47 IKS integration will enhance student's connection to their community:

	No. of respondents	percentage
4	22	44%
5	28	56%
Total	50	100%

Regarding the statement 'understanding of the IKS is helpful to enhance students' connection to their community', the responses indicate a strong positive agreement. A significant majority (56%) of the teachers strongly agreed, 44% agreed. The mean score is 4.56 on a 5- point Likert scale, indicating a very high level of agreement. The mode is 5, showing the most teachers selected strongly agreed. The median is also 5, suggesting that most teachers leaned strongly in favour of the statement.

4.48 IKS is helpful to prepare students for a globalized world:

	No. of respondents	Percentage
2	4	8%
4	16	32%
5	30	60%
Total	50	100%

The statement 'IKS Is helpful to prepare the students for a globalized world' received a highly favourable response. A majority (60%) of teachers strongly agreed, 32% agreed, and 8% remained neutral. The mean score of 4.52 on a 5-point Likert scale indicates a high level of agreement. Both the mode and median are 5, showing that the dominant response was 'strongly agree', these results suggest that most teachers believe the IKS effectively equips students for the demands of a globalized society.

4.49 Indian tradition and their scientific bases can play a role in creating a more sustainable and ethical society:

	No. of respondents	percentage
4	16	32%
5	34	68%
Total	50	100%

A large majority 68% of teachers strongly agreed, while the remaining 32% agreed. The mean score is 4.68, indicating a very high level of agreement on a 5- point Likert scale. Both the mode and median are 5, showing that most teachers perceive a significant role of Indian traditions in promoting sustainability and ethics in society.

4.50 More workshops and seminars should be conducted in learning more about IKS:

	No. of respondents	Percentage
5	50	100%
Total	50	100%

A large majority 100% of teachers strongly agreed, indicating a very high level of agreement on a 5-point Likert scale. Both the mode and median are 5, showing that most teachers perceives a significant role to conduct more workshops and seminars for learning more about IKS.