2024

ENHANCING CONTENT & ACCESSIBILITY TO QUALITY EDUCATION: SCIENCE CONTENT ACCELERATION

Unique Id-KMBL202122012

kotak
Kotak Mahindra Bank

iD impactDash

EVERYULB TECHNOLOGIES
PRIVATE LIMITED

Disclaimer

This report reflects our views based on the accuracy and completeness of the information provided to Kotak Mahindra Bank Limited. We assumed the genuineness of all signatures and the authenticity of original documents but did not independently verify them. This is not an audit, and we do not express an opinion or assurance. Comments are not intended as legal advice or opinion.

Information from public or external sources has not been verified for authenticity, accuracy, or completeness, though we have sourced it from generally reliable sources. We disclaim responsibility for this information. Our views are not binding on any person, entity, authority, or Court. No assurance is given that opposing views will not be asserted or upheld by any authority or Court.

Our findings are based on information and explanations provided by KMBL and Khan Academy India. Neither KMBL nor its affiliates accept responsibility for errors in this report due to incorrect information provided by the Khan Academy India.

References to 'Descriptive and Thematic Analysis' indicate analytical activities on the underlying data to present the information. We do not accept responsibility for the accuracy of the underlying data.

ImpactDash and its affiliates disclaim responsibility to any person other than the Client regarding the contents of this report. ImpactDash does not owe a duty of care to any party using or relying on this report and disclaims liability for any costs, damages, losses, liabilities, or expenses incurred by third parties in connection with this report.

By reading our report, the reader accepts the terms stated above.

Ethical Considerations
- **Informed Consent**: Interviews were conducted with respondents' consent, and permission was reconfirmed after completion.
- **Confidentiality**: Participant information is kept private, with no disclosure of identities. Findings are presented anonymously.
- **Comfort**: Interviews were arranged according to respondents' preferences and schedules for their convenience.
- **Right to Reject or Withdraw**: Respondents could refuse to answer questions or withdraw from the study at any time.
- **All the images used in this report were taken with informed consent from the Khan Academy staff by the Project Researcher.**

Table of Contents

Executive Summary

Khan Academy India has implemented the project "Enhancing Content & Accessibility to Quality Education: Science Content Acceleration" to create and develop NCERT-aligned science content that emphasized personalized and profound conceptual understanding. The project aimed to produce 500 educational videos and compile a repository of 5,600 questions pertinent to classes 9-12. Additionally, the project aimed to implement mastery mechanisms, diagnostic tests, and teacher tools over two financial years. The study aimed to evaluate video creation and measure the average number of Monthly Average Learners (MALs) for Science to assess engagement, reach and determine the average number of students engaging in at least one learning activity per month. The study used a mixed-method approach, employing a cross-sectional research design and a convergent parallel design. NPS survey, and ACER report were analysed, the number of responses in the NPS survey being 1489 respondents. Sample size for In-depth interviews (IDIs) with the program team was 14. Analysis of NPS survey, ACER report & IDIs was carried out independently and then integrated to ensure reliable findings, with triangulation bolstering data credibility.

KEY FINDINGS

The primary beneficiaries were students of grade 9th and 10th for whom enhancing the conceptual understanding of NCERT-aligned science content was the primary objective.

126 Videos were published in the fiscal year.

1688 Exercises designed in the fiscal year.

2,10,324 number of Monthly Active Learners (VALs) students were recorded using the platform.

594 minutes per very active learner per month was recorded.

9.9 hours per VAL per month have been achieved. Total learning time (TLT) per very active learner (VAL) for science students in grades 9 through 12 surpassed its target by **395 %.** These figures significantly surpass the recommended dosage of 2 hours per month per learner, indicating high quality content created by Khan Academy India.

CONCLUSION

In conclusion, the NCERT-aligned content created by Khan Academy India provided high-quality content to the students (learners) through online platforms. To maintain viewer engagement, It is recommended to keep video duration concise. Also, clear and organized presentation is critical, particularly in subjects like Biology and chemistry.

About Project

Khan Academy's Science Essentials was a publicly accessible, no-cost learning and assessment platform in India. The platform was intended for Indian students to learn at their own pace and according to their preferred style. The platform comprised videos and exercises intended to support learners in their ongoing learning journeys. The primary goal of Science essentials was to assist learners in developing a sound foundation in the fundamental concepts through high-quality learning videos that improved conceptual understanding.

Additionally, learners could engage in focused practice that enabled them to retrieve learned concepts, make mistakes, receive feedback, and in the process, master skills. The platform aimed to provide learners with a comprehensive learning experience while enabling educators to facilitate learning effectively. By providing video lessons and interactive exercises, learners could engage with the material and test their knowledge at their own pace. This approach was designed to support learners in developing a strong foundation in key science concepts, which would help them as they continued to learn and grow.

The proposed engagement entailed providing support to Khan Academy India (KAI) in the development of NCERT-aligned science content, emphasizing personalized learning and deeper conceptual understanding. The initiative comprised the creation of 500 videos and 5600 questions, specifically designed for students in grades 9-12, along with mastery mechanisms, tests/diagnostics, and teacher tools. The primary objective of this project was to develop science content aligned with the standards of the National Council of Educational Research and Training (NCERT), aimed at enhancing the conceptual understanding of students in classes 9 through 12. Established in 1961 by the Government of India, NCERT was an autonomous organization responsible for advising the Central and State Governments on policies and programs for the qualitative improvement of school education.
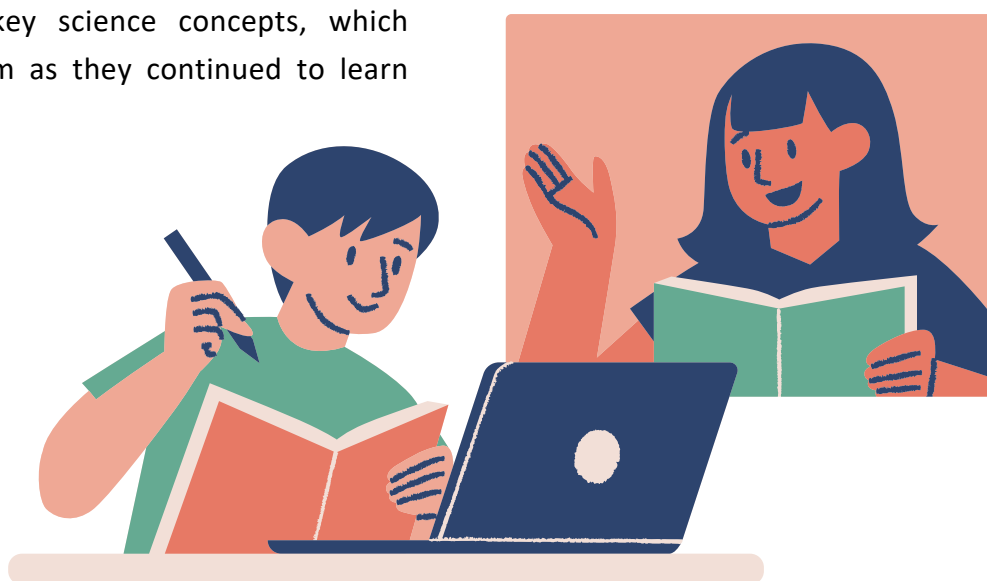
This project aimed to create and develop NCERT-aligned science content that emphasized personalized and profound conceptual understanding. As part of this Corporate Social Responsibility (CSR) initiative, the project was to produce 500 educational videos and compile a repository of 5,600 questions pertinent to classes 9-12. Additionally, the project aimed to implement mastery mechanisms, diagnostic tests, and teacher tools over two financial years. In the initial phase, content development prioritized the needs of students in classes 11 and 12. Due to the significant overlap between the science curricula of classes 9 and 11, these videos were also repackaged for use in class 9.

Furthermore, the content was to be produced in local regional languages to facilitate the learning of complex concepts and to reduce educational barriers in the forthcoming years.

Following were the main ojectives of the project:

Creation of NCERT-aligned science (Physics, Chemistry and Biology) videos and questions

Hosting of Content on Khan Academy Platform

Project Context

Empowering underserved children through online educational video content is a dynamic and effective approach to providing accessible and engaging learning experiences. In an era dominated by digital media, educational video content serves as a powerful tool to impart knowledge, stimulate curiosity, and bridge educational disparities.

Online educational videos break geographical barriers, offering educational content to underserved children regardless of their location. These videos can be accessed through various platforms and devices, allowing children with limited access to traditional educational resources to learn at their convenience. This accessibility fosters inclusivity and provides an opportunity for continuous learning.

Objectives of the Study

1. Assessing the creation of planned videos and question resulting from the provided support.

2. To measure the average number of Monthly Average Learners (MALs) for Science in order to evaluate the reach and determine the average number of students engaging in at least one learning activity per month.

3. To understand the average number of Monthly Very Active Learners (MVALs) for Science, with the aim of measuring engagement and determining the average number of students spending more than 120 minutes per month on the platform.

4. To provide recommendations for the scalibility of the project.

The **OECD DAC Framework** was used on a macro level for **Intervention impact assessment**. The OECD DAC Network on Development Evaluation (EvalNet) has defined six evaluation criteria – relevance, coherence, effectiveness, efficiency, impact and sustainability – and two principles for their use. These criteria provided a normative framework used to determine the merit or worth of an intervention (policy, strategy, programme, project or activity). They served as the basis upon which evaluative judgements are made.

Figure 1 : OECD DAC Framework

Source: OECD (2021), Applying Evaluation Criteria Thoughtfully, OECD Publishing, Paris,https://doi.org/10.1787/543e84ed-en.

Research Design

This study employed a mixed-method approach and a cross-sectional research design. The choice of this approach was contingent on the research objectives and the nature of the knowledge sought (Bryman, 2012).

Data collection in the field offered an insider's perspective, enabling a deep understanding of project implementation and the experiences of the beneficiaries including implementing agency-staff involvement. The research design employed a convergent parallel design, allowing for comprehensive conclusions. Qualitative and quantitative data were separately analyzed and then integrated to draw inferences. Triangulation was employed to validate the data and enhance its credibility.
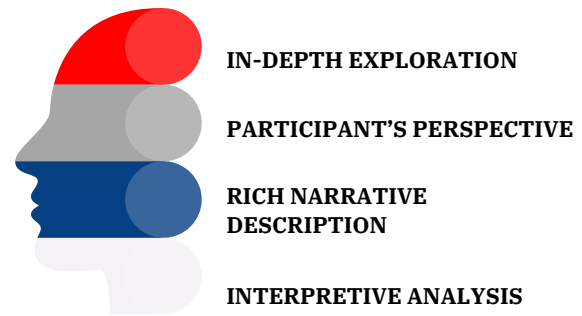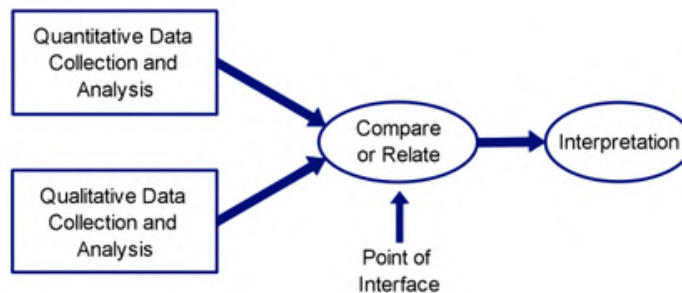
IN-DEPTH EXPLORATION

PARTICIPANT'S PERSPECTIVE

RICH NARRATIVE DESCRIPTION

INTERPRETIVE ANALYSIS

Figure 2: Convergent Parellel Design

Source: Convergent parallel design. Adoption from Creswell & Plano Clark, 2011

The research design employed a convergent parallel design, allowing for comprehensive conclusions. Qualitative and quantitative data were separately analyzed and then integrated to draw inferences. Triangulation was employed to validate the data and enhance its credibility.

Methodology

Our research employed primarily a qualitative approach with some quantitative aspects derived from desk review of NPS survey & ACER report to provide a comprehensive understanding of the subject under investigation.. The qualitative aspect involved in-depth interviews to gather nuanced insights, opinions, and experiences from participants. These qualitative data helped us explore the depth and context of the phenomenon being studied.

On the quantitative front, a thorough study and analysis of the secondary data was done to extrapolate the details on different parameters. This approach provided us with quantifiable patterns, trends, and correlations within the data, enhancing the reliability and generalizability of our findings

Sampling

Qualitative Survey: Data was obtained from a qualitative survey. **Purposive sampling** was preferred, with the intent to include all the important stakeholders whose input would provide richness to the study.
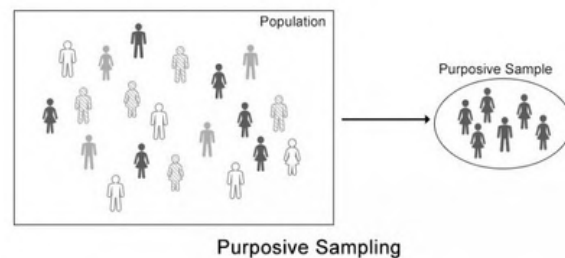

Figure 3: Purposive sampling

Source:2011https://research-methodology.net/sampling-in-primary-data-collection/purposive-sampling/

Table 1: Desk review sources

Sr. no.	Source	Analysis	Remarks
1	NPS survey	DESK REVIEW	**Based on 1490 responses from various respondents eg. students, teachers, parents**
2	ACER REPORT	DESK REVIEW	-

Table 2: Sample Size Distribution

Sr. no.	Stakeholders	Sampling technique	Methodology	Sample Size
1	KAI CONTENT CREATION TEAM, MANAGEMENT TEAM, MEDIA TEAM, PARENTS/MENTORS	Purposive sampling	Qualitative / In-person Survey	14
Total				14

Data Analysis

The data, including detailed field notes, were comprehensively transcribed without any omissions. Essential codes were identified and synthesized to reveal prominent themes, highlighting both commonalities and unique aspects within the data sets. Key insights were derived from these consolidated themes.

The analysis and thematic findings were then compared with the established objectives and previous programmatic data to identify any discrepancies and their underlying causes. Furthermore, the analysis was cross-referenced with the ACER report to corroborate the findings through a desk review of the document.

Data quality assurance, validation and analysis

For the study's qualitative data, quality was assured through accurate coding and transcriptions of the interviews of stakeholders. It was then systematically analyzed to extract meaningful insights. The lead researcher monitored the process closely.

Similarly, the quantitative data was accurately cleaned and then analyzed using software such as MS Excel. Meaningful representations were extrapolated using the data to accurately illustrate and depict the data.

Ethical Concerns

During the research, interviews were conducted with the KAI content creation team, management team, media team, parents/mentors, adhering to ethical rules of social research. This involved obtaining informed consent, ensuring privacy, and avoiding harm. ImpactDash adhered to the Unicef Procedure on Ethical Standards in Research, Evaluation, and Data Collection and Analysis (2021).

Limitations

The online nature of project allowed limited interactions with stakeholders such as parents & mentors since their willingness of participation was on a voluntary basis. Co-ordination of interviews with these stakeholders was challenging since they were placed in different parts of the country and were not direct beneficiaries under the program.

The Process

Khan Academy India followed a comprehensive process with multiple guardrails in developing its content. It has been comprehended by analyzing IDIs conducted with the KAI team. The following were step by step roadmaps of the process:

OUTLINING MAJOR UNITS

1

Developed a rough plan outlining the major units for the class. For instance, dividing the physics class 12 course, into three main sections: Electromagnetic Field Theory, Optics, and Modern Physics

2

OUTLINING ESSENTIAL CONCEPTS

Identified the essential concepts students needed to understand them independently. The goal was to provide them with the basic tools to explore and foster a curiosity for the subject, keeping the NCERT syllabus in mind.

BREAKING DOWN THE CONCEPTS FURTHER

3

Further broke down each major unit into sub-units. The aim was to make each unit interesting and different from traditional textbook presentations. For example, instead of merely covering electric fields, exploring how a microwave oven works, relating it to something students would have likely encountered in real life.

4

DEVELOPING CONTENT (VIDEO+EXERCISES)

Delved into the relevant concepts in the syllabus to present them in a more engaging manner, weaving them into a story. Identified and developed the necessary videos to tell that story and listed exercises to reinforce the concepts.

FIRST REVIEW

5

The peer review process ensured that every piece of content released was free from errors and met the highest standards.

The initial review took place during the planning phase of a chapter. If, for instance, multiple content creators were working on physics, one contributor would develop a chapter plan or a unit plan which was then scrutinized and debated by other physics creators. Discussions revolved around prioritization, reasons for prioritizing, and the content for videos and exercises. They explored the possibility of merging or breaking down content during this planning phase.

5

6

SECOND REVIEW

The second review occurred during the creation of the content pieces, such as videos or exercises, before they go live. They conducted the peer review mainly for content principles to rectify if there were a few errors before publishing the content

ROLLING OUT CONTENT

7

The content (videos and exercises) was published and made live for use by the audience. These were then be monitored by the KAI team and were open to reviews and feedbacks by users.
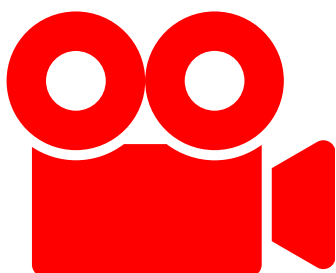
8

THIRD REVIEW

Once a full chapter was released, a third round of review was conducted involving individuals who were not physics or subject experts. They reviewed the content from the perspective of a student, provided feedback on the ease and smoothness of the learner's journey.

The content

VIDEOS

Videos visually explained concepts, articles were for written information, and exercises were for practice.

Here are some links to the video content:

How can birds sit on high voltage wires?

How do condenser microphones work?

How do touchscreens work?

EXERCISES

Exercises were subcategories like quizzes, unit tests, and core challenges. , Exercises included various question types, and quizzes and unit tests covered multiple skills simultaneously.

Here are some links on the exercises content:
Reactivity of aldehydes and ketones towards nucleophilic addition reactions.

Excretions in animals

ARTICLES

Articles had summary/intro articles, and videos could include explainer videos, worked examples, and longer summaries like entire chapter summaries or two-minute intros for courses or chapters.

The platform emphasized mastery-based learning by focusing on skill acquisition, rather than just rote memorization. Learners received tailored practice to develop specific skills, enabling them to identify and correct errors. Feedback was given not only on correct answers but also on incorrect ones, providing learners with a deeper understanding of the material. A subsequent attempt with a different set of questions reinforced comprehension, culminating in a comprehensive unit test for each chapter. The platform's rigorous approach ensured mastery and provided coaches with detailed reports to guide learners effectively.

Here are some of the testimonials from the users of KAI content:

> They are very different from traditional forms of learning. The recorded videos ensure that no information is missed. Unlike in school, where if a student misses a class, they may lose out on valuable information, Khan Academy's recorded content ensures continuous access.
>
> - A teacher from Odisha

> The practical teaching methods set them apart. For instance, they have videos showing the change in momentum by falling on solid ground versus a cushion. This practical approach, unlike traditional methods, makes it easier to comprehend complex concepts-
> -A student from Chandigarh

> I'm thoroughly impressed, especially with the practical demonstrations. The way they explain concepts through practical examples is amazing. It aligns with the syllabus, saving me time searching for content. I appreciate the videos; they make learning easy
>
> -A student from Kerala

> One of my students, initially struggling with physics, transformed after watching Khan Academy videos. She went from failing to becoming the top student in her class, thanks to the practical and engaging approach of Khan Academy.
> - A parent from Maharashtra

The practical teaching approach, using demonstrations to explain complex concepts, enhanced understanding more effectively than theoretical methods. Additionally, the alignment with educational syllabi saved time and ensured relevance. The engaging nature of the videos indicated improvement in students' comprehension and academic performance underscoring the concentrated efforts of Khan Academy India . Overall, Khan Academy's accessible, practical, and curriculum-aligned content proved to be a valuable educational resource.

Outcomes of support

KAI's progress was mapped using multiple indicators. These indicators have proven valuable in defining precise, measurable performance goals, which generate relevant, consistent, and comparable data over time.

No of Videos Created

126 videos created

A total of 126 videos were published as compared to 145 set targets in the fiscal year. Each video, with its unique content and creative approach, contributed to building a strong understanding of the subjects. The quality and relevance of the content ensured that each video made a meaningful impact on the students and other learners.

No of Exercises Created

1688 exercises created

Total exercises designed in the fiscal year amounted to 1,688, which is only slightly less than the set target of 1,784***. The exercises designed demonstrated a significant effort towards achieving the intended goals. They served as a valuable opportunity for growth and improvement of learners. Careful analysis of these provided them outcomes and valuable insights to enhance future learnings and improvements..

% coverage of 9-12 science - physics, chemistry and biology

45%
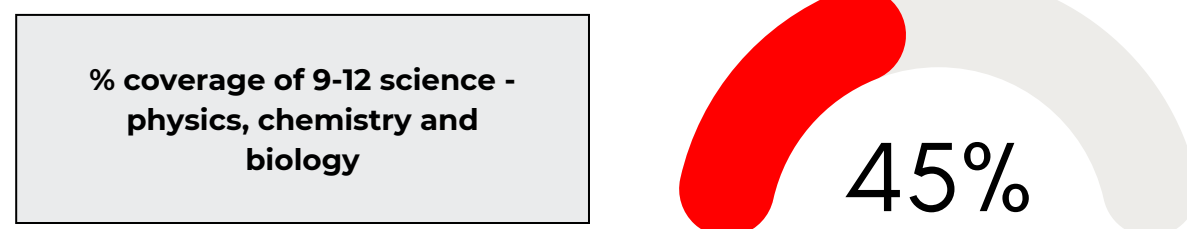
45% of the total set targets of coverage of science syllabus were achieved. KAI intends to cover the further syllabus in the upcoming project period for a more holistic coverage of syllabus.

2,10,324

Monthly Active Learners
(MVALs) students

During the fiscal year spanning from July 2021 to May 2022, on an average, **more than 2 lakh students accessed and used Khan Academy Science content and were among the MONTHLY ACTIVE LEARNERS(MALs).** These are the students who have performed at least one or more learning activities on the Khan Academy science content. These high numbers are a clear indicator of the high quality content provided by KAI for science to the students. They also registered the numbers based on organic peer pull without any marketing or promotional activities.

6,184

Monthly Very Active Learners
(MVALs) students

Of all the monthly active learners, From July 2021 to May 2022, more than **6184 students accessed and used Khan Academy Science content for more than 120 minutes per month and were among the Monthly Very Active Learners (MVALs).** .

Total Learning Time (TLT) per Very Active Learner per month for Science 9-12

594

minutes per very active learner per month

The total learning time (TLT) per very active learner for science students in grades 9 through 12 **surpassed its intended target by 395 %, reaching a total of 9.9 hour per very active learner per month.** These figures significantly surpass the recommended dosage of 2 hours per month per learner, indicating the hhigh quality content created by Khan Academy India.

NPS Survey

Net Promoter Score (NPS) is a measure used to gauge user satisfaction and enthusiasm with a service provider that's calculated by asking customers one question: "On a scale from 0 to 100, how likely are you to recommend this product/company to a friend or colleague?" Aggregate NPS scores help one improve upon their service, delivery, etc. for increased footfall or use. It can be used as a predictor of growth. When an institution's NPS is high (or, at least, higher than the industry average), one can say that they have a healthy brand image with users and are likely to generate a positive growth cycle.

The Net Promoter Score (NPS) survey was recently administered by KAI, offering valuable feedback from students, guardians, and teachers. The survey received a total of 1489 responses, with 68.4% of the respondents from private schools, approximately 24% from government schools, and the remainder from educators and college students.

KAI RECEIVED AN NPS SCORE OF 74.1 .

As per the NPS benchmarks of non-profits, a score above 50 is a significantly good score signaling that the users are extremely likely to recommend the nonprofit to a friend or family member.

There are multiple potential explanations for this. These range from their personal experiences of the user interface to their satisfaction of the content quality. A score of 74.1 is extraordinarily good given the conditions that absolutely no promotion was done for the marketing of the products and these ratings are purely based on the quality of the content.

Figure 4: Percentage distribution of user ratings.
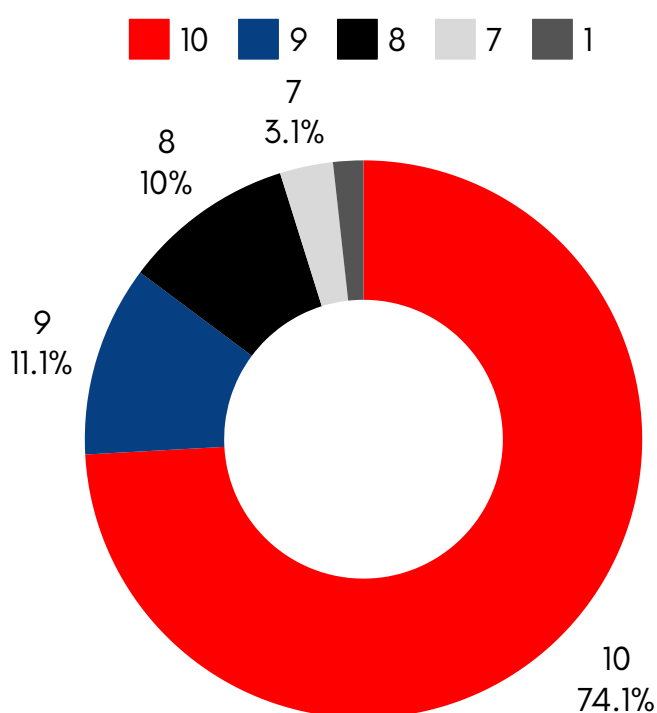
The respondents of the survey were primarily students from private schools. This was followed by students from government school , educators and parents.
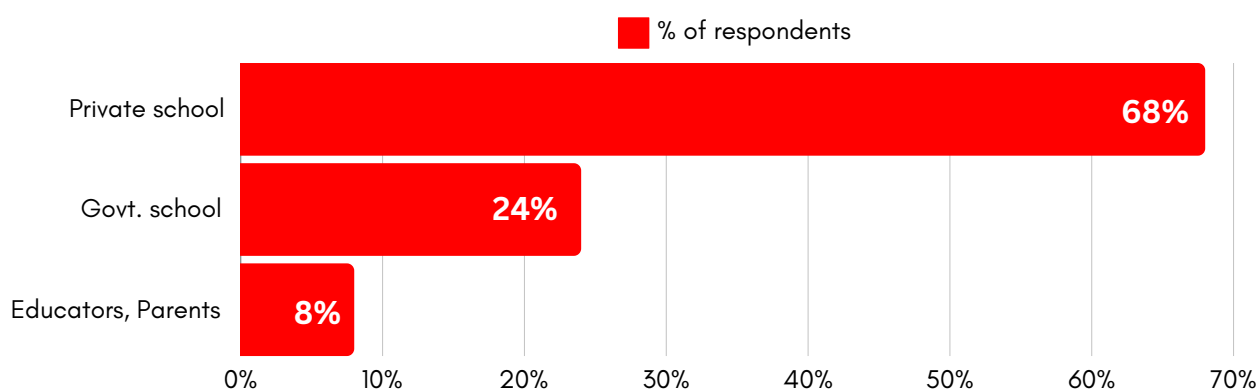

Figure 5 :Distribution of respondents amongst different categories

CLARITY OF CONCEPTS IN VIDEOS

- Upon analysis, it was determined that the users appreciated the videos' length and their ability to clearly convey concepts.

COVERING MORE SUBJECTS

- **More than 15% of the total users** expressed their desire for more frequent content on Chemistry and Biology.

> "
> I really love your concepts clearing method and would really live to see more topics based on chemistry and astronomy-
>
> - A student from Pune

> "
> *Your Video are Amazing! but you guys should not let some topic get left like of class 10 chemistry in "carbon and compounds"*
>
> *- A student from Pune*

> "
> It would be great if chemistry and biology of grade 9 is provided on Khan Academy.
>
> -A student from Ujjain

The quotes provided showed that students were eager to deepen their knowledge and validate the high quality of content delivered by Khan Academy India (KAI). They demonstrated that students found the material engaging and valuable, which motivated them to explore these subjects and topics in greater depth.

This feedback served as a strong endorsement of the quality of educational resources provided by KAI. Students' requests for additional content indicated their satisfaction with the current offerings, suggesting that the lessons were not only easy to understand and informative, but also effectively presented in a way that met students' needs.

QUALITY OF CONTENT

- According to the survey results, **38.5% of respondents provided ratings in response to the covered topics, while 61.5% appreciated the quality of the content.**
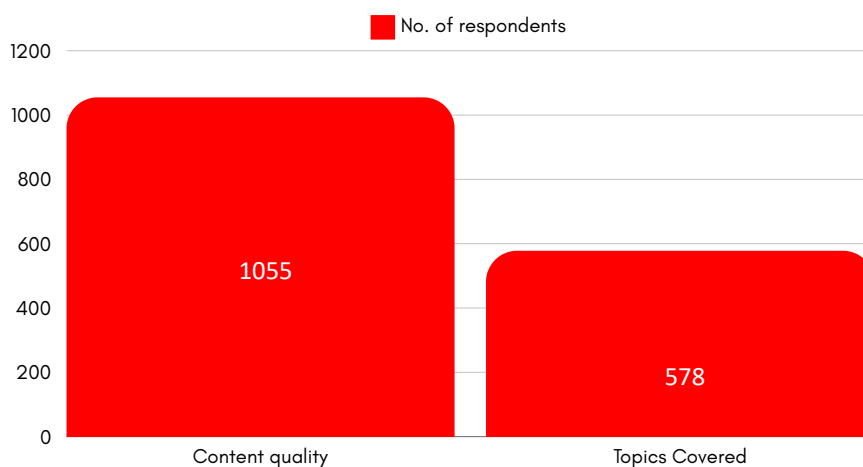

Figure 6 :Number of respondents providing ratings based on different parameters

> "
> Your physics content is phenomenal concepts explained with such simplicity keep it up
>
> - A student from Pune.

> "
> The way Khan Academy has explained their chemistry concepts has eased my learning to a great extent
>
> - A student from Delhi

> "
> Khan Academy is doing great and has helped me master my basics in Maths & Science. Though I don't use Khan Academy frequently anymore for now I am about to get into 12th and there aren't many videos covering topics in my subjects (Physics, Chemistry & Biology).
>
> -A student from Bangalore

The majority of students appreciated the high quality of the content. This reflected Khan Academy India's focus on maintaining quality in content creation. The positive reception of KAI's content showed the platform's commitment to making learning engaging and accessible.

Clear explanations, engaging visuals, and interactive elements were used to make complex topics more understandable and interesting for students. This attention to detail in content presentation helped maintain student interest and improved comprehension and retention of information.

CONTENT IN MORE LANGUAGES

More topics covered in science
15%

Content in more languages other than english
78.8%

Figure 7 :Requirement of students

> "
> It would be great if you can make videos in Malayalam.
>
> --A student from Kerala

Based on the survey, 93.9% of respondents expressed a desire for more content from Khan Academy India (KAI). Around 79% indicated a preference for content in languages other than English. Furthermore, 15% of the respondents requested more science subjects, while an additional 15% asked for Chemistry topics and IIT-JEE exam preparation. These statistics underscored the students' keenness to access additional learning materials through KAI in local languages.

Effectiveness & efficiency

The project proved to deliver high-quality science content through their platform to students. Students provided feedback through comments on the YouTube channel and courses about the effectiveness of the course structure and teaching methodology. 65% of learners recognized the project's role in guiding them in their academic pathways & around 40% of the students, teachers, and mentors expressed that these courses helped them understand concepts much better, aiding their learning eventually. The pivotal role of the implementation partner was evident in disseminating educational information to the users, acting as a conduit for them to access educational support.

Relevance

A common sentiment among many students was their desire for teachers to adopt KAI teaching methods, which they believed had accelerated their learning process. This feedback was a testament to the effectiveness of Khan Academy India's content, which aimed to address the quality of education that many students did not ever receive, due to their inability to access high-end educational facilities, owing to their marginality. For lower-middle-class students, the platform provided a valuable opportunity that might otherwise have been challenging to attain. This was an important achievement for KAI as it further strengthened the section of the society that intended to learn but found it challenging to access the proper education.

Sustainability

The project adopted a sustainable model of providing freely accessible NCERT aligned science content all round the year for learners. The flexibility of accessing the content & courses emerged as a facilitating factor that enabled more learners to benefit in a sustainable manner and allowed learners from all geographical locations to access the content as and when they required.

Impact

The work of Khan Academy India had a significant impact beyond simply providing access to educational resources. Recently, the government of Uttar Pradesh acknowledged the quality of their content and invited them to implement their science program in schools. This recognition resulted in the localization of content in Hindi for grades 9-12 in Uttar Pradesh, making it more accessible to a wider audience.

IMAGE 1 :FIELD PICTURE

Implementation Partner's Views

There is a lot of content out there you know. If you look at the science content of classes 9th to 12th, the content is so vast that we have understood from our collected teaching experience.

What we found is that kids have a lot of problems in grasping the fundamentals because they are completely drowned by the sheer volume of the content out there and so our hope and we aimed to tackle this particular pain point where people don't understand the fundamentals. They don't understand what's going on.

So the idea was to provide a Mastery learning experience for the core concepts for the essential concepts. That's why you call it science essentials for the essential concepts of the least subjects in science, which are physics, chemistry and biology. So, the Hope was that once they Mastered these concepts would be able to go on and learn more advanced concepts all by themselves.

It serves both the teachers and the students (more targeted towards the students, I would say) but it will help the teachers as well. These are teachers and students who are from the of Grade 9th to 12th, mostly aligned to the CBSE curriculum.

--Umesh, Manager,6 year experience

We have our quality guardrails on how our content has to be delivered; and how clean and clutter-free content has to be communicated. So, we have all those standards within Khan Academy. We have the content rubric and that ensures the quality of content. It's more palatable and more acceptable to the user. So that is what drives the idea behind creating content through Khan Academy.

-Eshita, Senior Manager, 10 year experience

Chapter- 4 Recommendations and Conclusion

Recommendations

To maximize the effectiveness and engagement of educational videos produced by KAI, several strategies can be employed. These recommendations focus on optimizing video duration, improving presentation quality, utilizing animation, and refining assessment frameworks.

Optimize Video Duration: To maintain viewer engagement and ensure content is easily digestible, it's crucial to keep video duration concise. Shorter videos, ideally under 10 minutes, are more effective in retaining viewer attention.

Segment Content: Instead of creating one lengthy video, split the content into two or more shorter videos. This approach helps in breaking down complex concepts into manageable chunks, making it easier for students to follow and retain information.

Refining board work and screen display: Clear and organized presentation is critical, particularly in subjects like Biology where detailed information and numerous texts are often required. Improving legibility and overall presentation can significantly enhance learning outcomes.

High-Quality Visuals: High-definition visuals ensure that text and diagrams are crisp and clear. Avoid overcrowding the screen with too much information at once.

Visualizing Abstract Concepts: Using animations to illustrate processes that are difficult to visualize, such as cellular mechanisms or ecological interactions. This can help students grasp difficult concepts more easily.

Conclusion

In conclusion, the NCERT-aligned content created by Khan Academy India provided high-quality educational material to students through online platforms. The findings highlighted the program's success in enhancing students' understanding of essential science concepts using a student-friendly approach. The positive feedback from students emphasized Khan Academy India's efficient use of resources in developing high-quality content.

Building upon these achievements, the recommendations outlined above aim to refine and expand the program's reach, ensuring a more robust approach. By optimizing video durations and segmenting content, the learners may find it easier to grasp the concepts, and this will, in turn, increase their learning levels. This will further enhance their capabilities, leading to more efficient outputs.

References

- ACER REPORT on Science content evaluation (Australian Council for Educational Research Report): A review of science videos and exercises of Khan Academy

- Almahasees, Z., Mohsen, K., & Amin, M. O. (2021). Faculty's and students' perceptions of online learning during COVID-19. Frontiers in Education, 6. https://doi.org/10.3389/feduc.2021.638470

- Gajura, C. (2021, September 17). Online Learning: Revealing the benefits and challenges. eLearning Industry. https://elearningindustry.com/online-learning-revealing-benefits-and-challenges

- Gopal, R., Singh, V. & Aggarwal, A. Impact of online classes on the satisfaction and performance of students during the pandemic period of COVID-19. Educ Inf Technol 26, 6923–6947 (2021). https://doi.org/10.1007/s10639-021-10523-1

- The 10 Benefits of Online Learning - School of Education. (n.d.). School of Education. https://drexel.edu/soe/resources/student-teaching/advice/benefits-of-online-and-virtual-learning/

List of Figures, Images and Tables

- Figure 1: OECD Framework

- Figure 2: Convergent parallel design

- Figure 3: Purposive sampling

- Figure 4: Percentage distribution of ratings by users

- Figure 5 : Distribution of respondents among different categories

- Figure 6 :Number of respondents providing ratings based on different

  parameters

- Figure 7 :Requirement of students

- Image 1 :Field picture

- Table 1: Desk review sources

- Table 2: Sample Size Distribution

kotak
Kotak Mahindra Bank

This report captures the impact assessment study for
Kotak

27bkc, C 27, G Block, Bandra Kurla Complex, Bandra (E), Mumbai, Maharashtra, 400051

91 22 61660000

https://www.kotak.com/

We express sincere gratitude to the mentors and the implementation team, whose willingness to share their experiences has transformed this research into a deeply meaningful endeavor.

A publication by
IMPACT DASH

✉ hello@impactdash.com

🌐 www.impactdash.com

in impactDash 🐦 impactdashHQ 📷 impactdash

Project Researcher: Devesh Bharra