



# Manthan

EDUCATION NEWSLETTER

May 2023

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## Girl's Education

A paradigm shift in the last couple of years - what needs to be celebrated and what more is needed

Gender is a biological difference but in the way it intercedes in a society, it has become a cultural construct for discrimination. This discrimination finds expression in myriad institutional imprints and is widespread in our cultural psyche. Education cultivates this paradigm cleverly as an instrument of social control, of 'dominance', carefully laid out in an arrangement of ranked allocation of household tasks as it were – one set of works reserved for boys and another set is chosen for girls. Also, when money is scarce and education is an opportunity cost, sons are educated and not daughters. Given the prevailing influence of patriarchal values, right from their birth, a lot many girls bear the brunt of gender inequality and stereotypes and are treated inferiorly, as compared to boys.

Women led development will become a reality when we provide equal opportunity in education. The International commitment to SDG 4, 5, 8 (education, gender equality and decent work) will be realized when 50% of the population matches its strides with the rest of the country. Education provides social and human capital for our people and not ensuring this will mean not only the current, but the next generation will struggle too, as mothers are the first teachers of their children. It has been researched that every 10% increase in educational experience leads to 18% increase in women owned businesses. If women have to exercise active agency, their girlhood needs to be secure and strengthened, and education is the non-negotiable capital to make it happen.

Cultural values or orthodox belief, extreme taboos, mental stigma like **"Paraya Dhan"** (*A liability for the parents and one day she has to get married and has to be handed over to her husband and in-laws*), child labor and marriage, a scarcity of feminine hygiene products, Unavailability of decent functional girls' washroom, safety concerns, distance of schools from home, are some of the major issues which makes the situation more challenging. Due to these major reasons enrolment rate of girl students has been a challenge in the past, dropout rates in secondary classes have been more, resulting in girls not completing school or not getting education at all. This has severe consequences on the overall life of female which includes but is not limited to Lack of economic Opportunities, Lower academic performance, social stigma, lower self-esteem, financial dependency, sometimes leading to domestic violence etc.

Considering the grave situation, a lot of focus was put on this issue and central as well state governments in India / across the country came up with a targeted approach and focused policy for providing access and opportunity to girls for their education. It was ensured that girls should have easier access to schools near to their home by opening schools in the neighbourhood. Free Uniform and textbooks are given to girls up to Class VIII. Additional teachers have been recruited with more focus on female faculties and residential quarters for teachers in remote/hilly areas have been made.

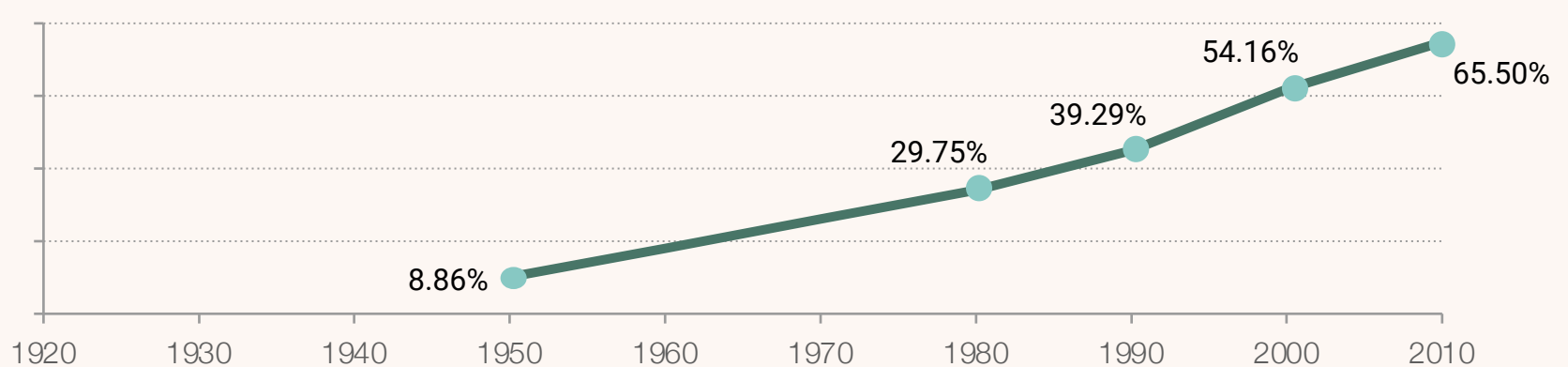
## Girl's Education

A paradigm shift in the last couple of years - what needs to be celebrated and what more is needed

Stipend to CWSN girls from class I to Class XII, bicycles for girls going to secondary and senior secondary schools, separate toilets for girls, teachers' sensitization programmes to promote girls' participation, gender-sensitive teaching-learning materials including textbooks etc. are some of the most important and innovative schemes launched and successfully implemented by central and state governments. Samagra Shiksha launched a fully residential school for girls by the name of Kasturba Gandhi Balika Vidyalaya (KGBV) with the purpose to reduce gender gaps and improve enrolment. These schools are from class VI to XII for girls belonging to SC, ST, OBCE, Minority section, girls from Below Poverty Line families. Primarily girls from socially and financially deprived class who will get education free of cost with full residential facilities. More than 5615 KGBVs have been sanctioned in the country with an enrolment of 6.50 lakh girls. Central government has launched a massive scheme "Beti Bachao Beti Padhao" in 2015 to save girl children and educate them. In addition, 'Sukanya Samridhi Yojana' scheme was launched in 2015 to meet the expense of the Girl child's higher education and marriage". Even the NEP 2020 will ensure that young girls from disadvantaged and under-represented groups get an equal opportunity to benefit from the Indian education system. With all these schemes launching and implementation, a positive change has been observed in last few years.

The women's literacy rate has further increased to 77% as per the recent World bank report. Over 12.29 crore girls were successfully enrolled in primary to higher secondary in 2021-22, according to the latest data by the Ministry of Education. 8.19 Lakhs female students were enrolled more in 2022 than the enrollment of girls in 2020-21. Enrolment of girls has gone significantly up and consequently the glaring gender gap in higher education has gone down. As per the latest All India Survey for Higher Education, the gap in higher education institutes is narrowing as 49% of the students in colleges are girls. Girl's enrolment during this period was 18.2% with respect to the overall 11.4% growth. There has been a significant increase in the GER at primary level from 88.5% to 90.5%, 98.7% from 96.7% at the elementary level and at secondary level it has increased from 76.9% to 77.8%. Improved number of female teachers in schools has played a significant role to reduce gender gap in primary and secondary education. In FY 2022, 95.07 lakh teachers were engaged in school education out of which more than 51% were females. The National Education Policy 2020 emphasizes a lot on continuous rise in enrolment, adding more number of institutions and improving gender parity so that access, equity and quality can be provided.

Literacy Rate



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Even after all these positive changes which give enough reason to celebrate, the task is not complete. The National Focus Group on Gender Issues in Education rings a cautionary note: "It is not enough to just "interlude" women in the curriculum." The retention rate of girls at elementary and secondary level is still a major challenge due to existing attitudes regarding girls' education, only one in every three girls in India completes school education age-appropriately. Recent national data reveals that the dropout rate for girls at the elementary level are 4% which rises to over 16% at the secondary level, and this raises a concern when the percentage is substantially higher for the girls who are coming from vulnerable and marginalized category like 19.05% for SC and 24.4% for ST groups. The rate of retention decreases from 70.6% in elementary to 55.5% in secondary level.



### What else can be done?

Quality education that ensures learning outcomes which encourage transition of girls to Higher education and girls opting for STEM education and jobs from all corners of the country and excluded communities. An inclusive curriculum under NEP also resulting in inclusive choices for women in careers especially in male dominated domains. Thus, career education should be introduced at grade 6 which will help girls understand how career pathways can be created which will inform their choice of subjects and the connection between education and the world of work. In addition, financial literacy, health and nutrition, vocational education and safe environment is needed to ensure

that they not only navigate school life with ease and confidence, but they also continue to tertiary education with the confidence of shaping their careers. Girl friendly school environment with a gender sensitive environment in the classroom will enable boys and girls to re-frame cultural biases into a broader and inclusive mindset. Opening more schools with better accessibility, where health and hygiene aspects are taken care of like easy affordable sanitary napkins, separate and functional toilets, will truly the challenge the status quo and will ensure a safe passage for our girls through their school years.

02

# Reimagining Education through Gamification

## An Indian Perspective

Education in India has always been a strong catalyst for growth and development. Owing to the increasing use of digitization and technology, the sector is set to continue its evolution and expansion. In line with this, education sector is also embracing gamification with the aim of improving the teaching-learning experience. This is a part of making learning more intuitive for digital natives, i.e. students who have grown up with digital technologies and are developing 21<sup>st</sup> century competencies. This helps in developing essential life skills, including critical reasoning, analytical thinking, problem solving, social awareness, cooperation, cognitive abilities, and collaboration. Gamification in education is more than merely using games for teaching, and hence, different scenarios are devised to challenge a student's thinking and help them adapt to change, as in real life situations.

Three gaming principles are of particular importance: first, the mechanical principle (idea of incremental progression through indicators and intermediate goals, instant feedback vs deferred feedback obtained through examinations); second, personal principle (status and visibility through use of leaderboards); third, the mental state of 'flow' (state of total focus on the task at hand).

Gamification has been backed by the National Education Policy (NEP) 2020 issued by Ministry of

Education, Government of India, which envisions a shift from traditional (and rote) learning to innovative and hands-on educational methods. Aligned with this several schools and colleges have established dedicated gaming rooms or labs, where students can be a part of an immersive experience via video games and other interactive technologies. Advanced technologies of Artificial Intelligence (AI), Robotics, Virtual Reality (VR), Extended Reality (XR) etc. are leveraged to enrich gamified learning experience for students.

The suggested reforms in NEP are coupled with the forward-looking policy interventions undertaken through the National Policy for Animation, Visual Effects, Gaming and Comics (AVGC), issued by Ministry of Information and Broadcasting, Government of India. The policy paints a picture of India, which is anticipated to become one of the world's leading markets in the gaming industry, with the background that the country has been growing steadily for the last 5 years, and it is expected to be 3 times in value, with a reach of USD 3.9 billion by 2025. One of the key pillars of gaming sector under the AVGC policy is the reach in education and training, which will be made immersive using gamification and extended reality (XR) projects. This will be helpful in creating more engaging content for students and thereby, deliver better learning outcomes.

## Reimagining Education through Gamification

An India Perspective

In line with the policy push, EdTech companies are proactively implementing varied forms of gamification of education in the country. These companies focused on creating personalised adaptive learning systems by way of: developing early learning multiverse for Indian movies and series teaching life skill sets, offering local language gamified content mapped to CBSE/ ICSE/ state board syllabus for subjects, Braille learning devices, etc. There is also potential in the sector to use existing commercial off-the-shelf games given the high costs of developing high quality and visually appealing video games.

Despite the increasing focus towards gamification in education, India faces four primary challenges in the domain: technology infrastructure, pedagogy, content and assessment, and privacy. The first one is perhaps the most easily solvable: infrastructural gaps. 66% of Indian schools don't have internet access, and less than 50% have functional computers (as per UDISE 2021-22). However, despite the current digital gaps, India has been making rapid progress in providing such access, which is substantiated by the data between 2019 and 2022 which cites that the share of schools with internet access nearly doubled in the last 4 years.

The second challenge, however, is a more intractable one: teacher buy-in. Teachers who have been trained in traditional pedagogy in India are reluctant to adopt active learning-based teaching methods. The role of teacher is key to make decisions about selecting the game, aligning in-game objectives with learning goals, and working its fit in the classroom setting. There is a need to focus on re-training teachers either through projects like Strengthening Teaching-Learning and Results for States (STARS), an initiative funded by the World Bank, or shorter-term upskilling courses (such as the gamification program for L&D for educators in Kerala). Teachers' concerns about adopting gamification in learning settings can, in part, be alleviated by conducting more rigorous research in the area to demonstrate empirical evidence supporting the role of gamification in education.

For all of the attention paid to gamification in school education, the pedagogy of play remains underutilized at the level of higher education because it doesn't necessarily lend itself to the teaching of complex topics. Surface-level game-based learning relies on repetition of content which helps address lower-level learning goals rather than higher-level ones. This brings to light the third challenge: content and assessment for gamified courses. The content needs to be aligned to a competency curriculum with clearly defined learning outcomes. Connected to content regulation and learning outcomes is the concept of testing those same learning goals through personalized assessment.

Lastly, there is also a lingering concern about the volume of data which is being collected on children's activity through gamification apps and if they violate children's right to digital privacy.

Considering the growing market for applied games and its use by industries to train and develop the workforce, the initial steps can be integrating applied games in the school curriculum, especially at the upper primary and secondary levels. However, this needs to be accompanied by a comprehensive assessment of the country's readiness to offer structured programs in this area, identifying and implementing capacity building initiatives and ensuring safe data usage, all mapped through a dedicated action course, as an extension to the existing NEP 2020. The new policy needs to be backed by evidence-based intervention (a pre- and post-impact project evaluation model) to build empirical support for the effectiveness of gamification of education in India. Additionally, the surge of Indian EdTech companies necessitates standard-setting, regulation, and certification for digital content providers.

03

# What do the Board Results say?

An analysis of CBSE and ICSE board results of 2023

## What does the class 12 result say?

Is there no fun or charm in scoring maximum marks in board exams as CUET (common University Entrance Test) has been introduced. The recent board exam may suggest the same idea. Or maybe it has been observed that announcing the number of students scoring highest marks is putting pressure on younger generation to outperform the seniors and hence CBSE has decided not to announce the result in the old traditional way.

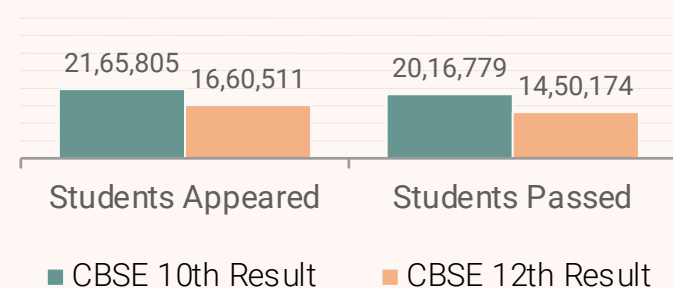
Pleased to see girls getting ahead having outperformed boys with 90.6%. Also, it's heartening to see Jawahar Navodaya Vidyalayas taking the first position. As a forward march we can create inspirational examples of JNVS students progressing to higher education after grade-12, by transitioning meritorious JNVS students to Higher Education on the back of scholarships along with the participation of corporate partners.

Also, a supplementary exam to enable students to re-appear in one subject has also been announced for July by CBSE.

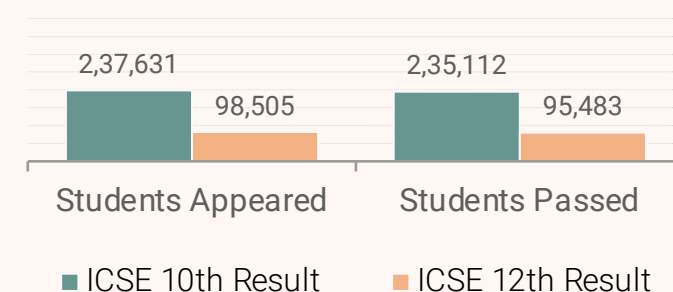
## CBSE and ICSE - the more accessible board

Considering the number of students registered in CBSE and ICSE board, CBSE has a much larger reach and penetration and dominating the Indian school education market. There is also an important observation as the difference between students in class 10 and 12 from CBSE is much larger than the difference of students in class 10 and class 12 from ICSE board which shows better consistency and lesser dropout and/or change of board after class 10<sup>th</sup>.

### CBSE 2023



### ICSE 2023

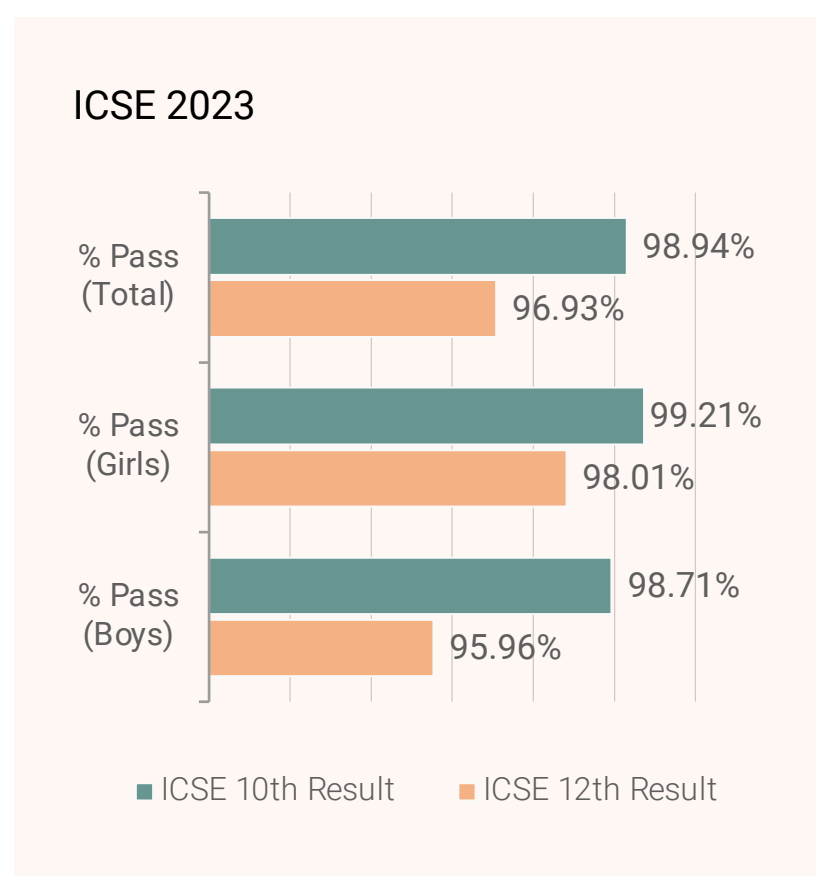
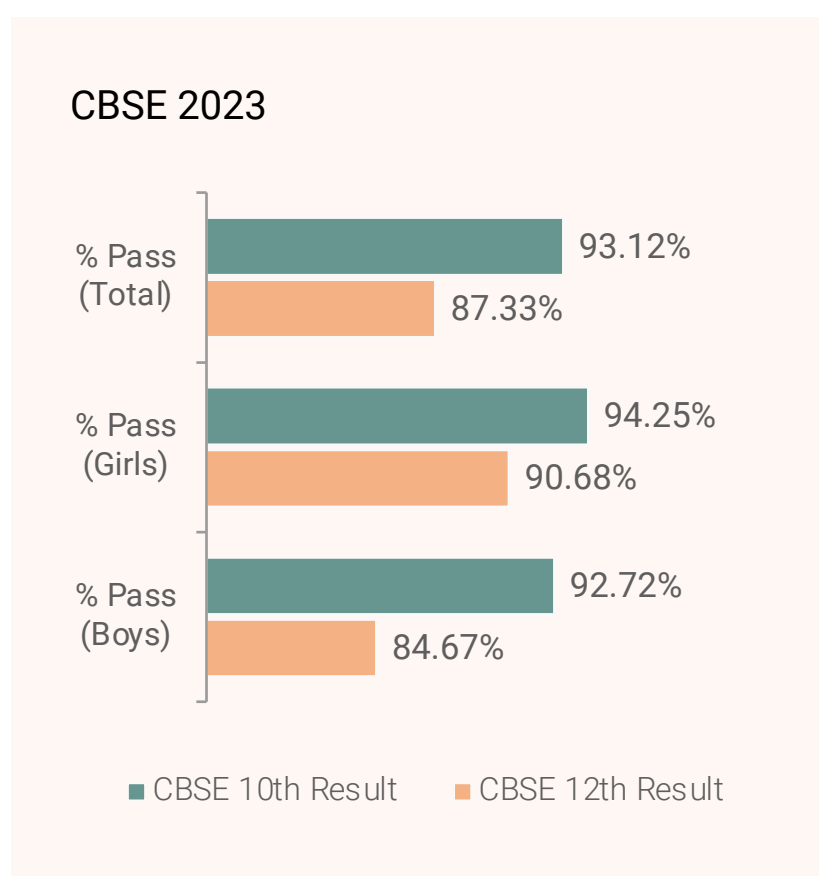


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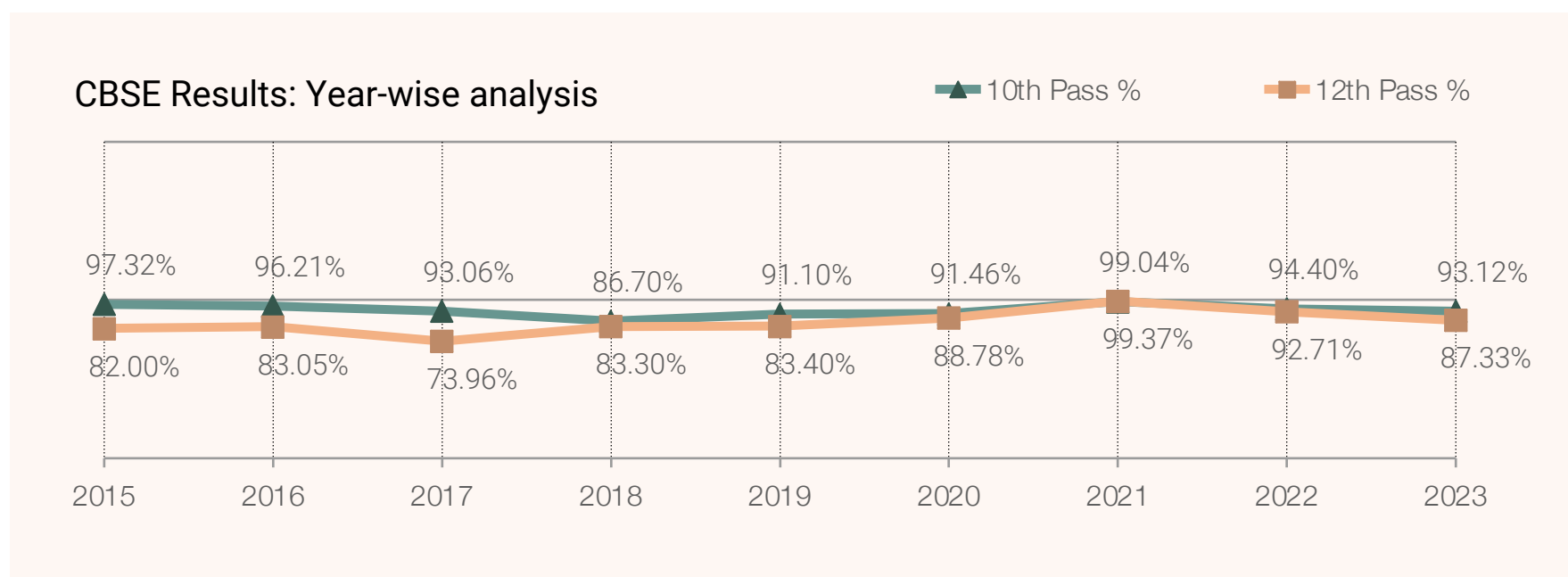
An analysis of CBSE and ICSE board results of 2023

### Girls power-dominating the results and outperforming boys has become a tradition now

At the same time, the results of CBSE and ICSE for class 10 and class 12, also re-confirm the standout performance of girls as they have once again performed better than boys. The CBSE results show that, in class 10, the pass %age of girls is 94.25% than 92.72% of boys and in class 12<sup>th</sup>, the pass percentage of girls is 90.68% than 84.67% of boys. In ICSE board, in class 10<sup>th</sup>, the percentage of girls is 99.21% than 98.71% of boys and in class 12<sup>th</sup>, the %age of girls is 98.01% than 95.96% of boys.



The year wise analysis of class 10 and class 12 results of CBSE indicates that there is significant drop in the overall pass %age in 2022 from 2021 and again 2023 from 2022.



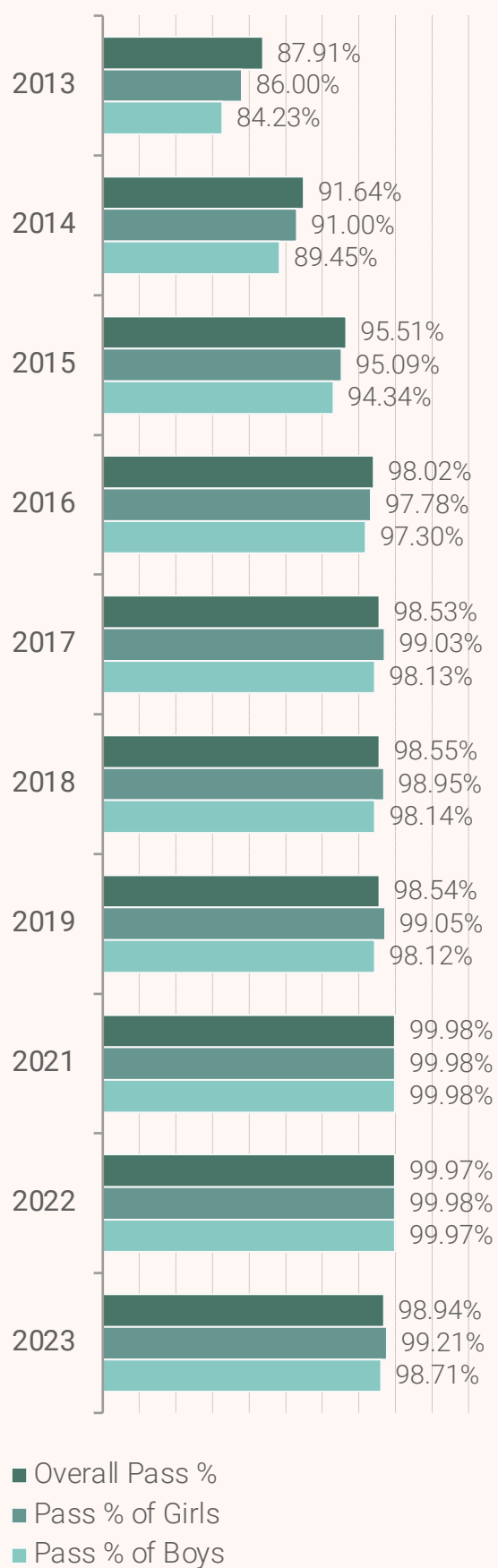


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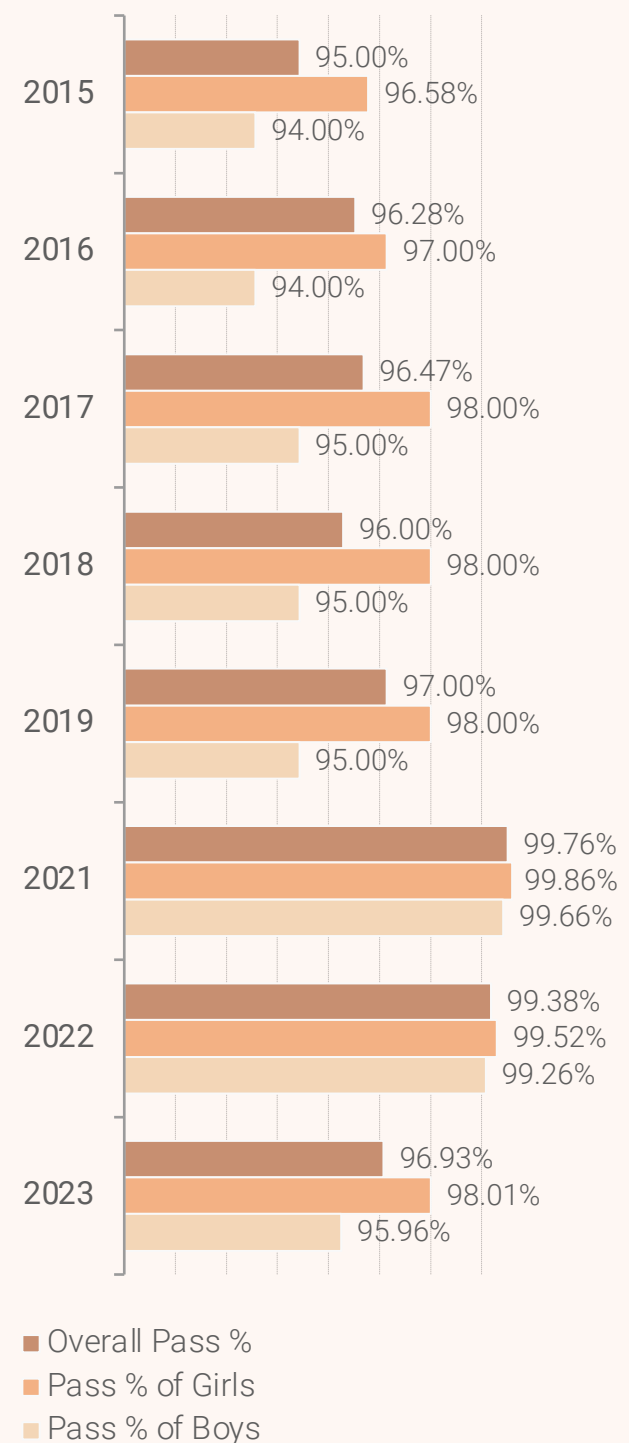
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The year-wise analysis of class 10<sup>th</sup> and class 12<sup>th</sup> results ICSE board proves that there is an improvement of overall passing %age of students. At the same time pass %age of girls has been constantly better than pass %age of boys in class 10<sup>th</sup> and class 12<sup>th</sup>.

### ICSE Results: Year-wise analysis Class 10



### ICSE Results: Year-wise analysis Class 12





**PASSION**

for providing solutions to help clients achieve their goals

**RESPECT**

for all and alternate viewpoints

**INTEGRITY**

of thoughts and actions

**MASTERY**

of our chosen subject to drive innovative and insightful solutions

**US**

representing the Primus collective, where each individual matters

**STEWARDSHIP**

for building a better tomorrow

# About Primus Partners

Primus Partners has been set up to partner with clients in ‘navigating’ India, by experts with decades of experience in doing so for large global firms. Set up on the principle of ‘Idea Realization’, it brings to bear ‘experience in action’. ‘Idea Realization’— a unique approach to examine futuristic ideas required for the growth of an organization or a sector or geography, from the perspective of assured on ground implementability. Our core strength comes from our founding partners, who are goal-oriented, with extensive hands-on experience and subject-matter expertise, which is well recognized in the industry. Our core founders form a diverse cohort of leaders from both genders with experience across industries (Public Sector, Healthcare, Transport, Education, etc.), and with varied specialization (engineers, lawyers, tax professionals, management, etc.).



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