



GOVERNMENT OF KARNATAKA

Department State Educational Research and Training, Bangalore
Teacher Education Plan 2019-20. Samagra Shikshana Karnataka.



Analytical Report

'RELECTIONS AND ACTIONSON

CSAS AND NAS BASED RESULTS'

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2020

CERIFICATE

This is certified that the work contained in this report titled 'Reflections and Actions on CSAS and NAS based Results' submitted by Dr Hariprasad.G V and Ashwin C R faculties of DIET, Shivamogga under teacher education plan of 2019-20 is a bonafide report work carried out under my supervision. The result embodied and the data analysis has not been submitted elsewhere.

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Acknowledgements

This analytical report has been conducted as a part of the Teacher Education Plan of 2020, 'Reflections and Actions on CSAS and NAS based Results'. This reflective report was supported by Maruthi.M.R, Director, DSERT, Bangalore and Mr Manjunath SADPI, TE Cell, DSERT, Bangalore. The grant included support for study on CSAS and NAS based results in Shimoga district.

We are grateful to all the visionaries, guides, Smt Sumangala P Kuchinadour DDPI(dev) &Principal and all BEOs, BRPs, CRPs and teachers for generously shared their time and documents with us to enable us to profile them in this sourcebook.

We are grateful to the contributors of this report Mr Veerabhadrappa, Vice Principal, Mr Phanish.M.S, Senior Lecturers and all other Senior Lecturers and Lecturers of our DIET. Their contribution to all aspects of our work is immense. Our Lecturers Smt Shahshikala, Sri Manjunath, Smt Asuntha Sequera also helped us in completing this report. We acknowledge their professionalism and commitment.

The administration and accounts staff of DIET supported us in innumerable ways in all aspects of our report work. We are grateful for this. We are also grateful to Mr Ravi, Malanad Printing Press who meticulously supported bringing out this report book in its print version.

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2020

PREFACE

'Learners need endless feedback more than they need endless teaching'
- Grant wiggins, Less teaching and More feedback ?

Learning is a beautiful accident which takes place at some point of time. But the learnt knowledge needs clear expression and meaningful interaction for further reconstruction of knowledge. The construction of knowledge is tested not for judgments but for improving the facilitating skills of teachers. Thus evaluation is being conducted regularly. Evaluation and assessment frameworks have no value if they do not lead to the improvement of classroom practice and student learning. Securing effective links to classroom practice is a key policy challenge in the design of evaluation and assessment frameworks. Thus there is an attempt by our DIET faculty to have reflection based up on CSAS results. We are thankful to our Secretary, Our CPI, Our SPD and Director DSERT for taking up this initiative of providing such a wonderful programme. We also express our gratitude to TE cell of DSERT for dedicating a part for this study during 2019-20.

Dr Hariprasad. G V and Ashwin C R faculties of DIET, Shivamogga have accepted this responsibility and dedicated themselves for coming up with this report in the last moment by working day in and day out. I congratulate her and also thankful for completing this study on time. Also I express my gratitude for all the faculty members of DIET who helped to complete this study.

Regards

Sumangala P Kuchinad

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CONTENTS

Sl no	Topics	Page numbers
1	Introduction	6
2	CSAS and NAS Survey, objectives	11
3	Observation of related literature	11
4	Analysis and Reasons	15
5	Strategies	16
ANNEXURES		
I	List of low achieved competencies	

Introduction

While the Right to Education Act ensured access to education for all children, there is a felt need to improve the quality of education and service delivery. Data from assessments such as the National Achievement Survey, Census Based Achievement Survey and the Annual Status of Education Report reinforces the need for system-level interventions across the school education system, with a focus on improving grade level competency and ensuring that India's schooling system delivers on learning outcomes.

Quality school education is a function of a targeted focus on learning outcomes, efficient governance structures, provision of necessary infrastructure and ensuring equitable academic opportunities. The census based surveys also provide bases for creating such structures in a symbiotic ecosystem, these structures must converge with efforts across the Government to evolve an education landscape which resonates with the ideals of a youthful nation and which realises the potential of every single child across the state.

NAS 2017 is designed as a school-based survey of students enrolled in Std III, V and VIII in government and government-aided schools. It is a grade-level assessment based on class-wise, subject-wise learning outcomes developed by NCERT.²⁰ The attainment of learning outcomes in terms of competencies was tested. These learning outcomes have been incorporated into the central rules for the Right to Education (RTE) Act²¹ in 2017, to serve as a guideline for states.

NAS covers rural as well as urban districts of India. NAS 2017 is a school-based nation-wide survey and focuses on Std III, V and VIII. While earlier versions of NAS involved sampling of districts at the state level, districts served as the basic sampling unit in NAS 2017 which included nearly all districts of India. In each district, a fixed number of schools, 25 for each class were sampled using the Probability Proportional to Size (PPS) method. Within each school, 30 students from any one section of the class were selected through random sampling.

NAS 2017 was implemented in 701 districts across 36 states/union territories. It covered a total of 2,121,173 students from Std III, V and VIII. A total of 116,534 schools were surveyed. Previous NAS surveys had a much smaller sample size. Cycle 3 of NAS included around 4.2 lac students from elementary grades. NAS 2017 also

collected background information on schools, teachers and students with the help of separate questionnaires. A total of 287,393 teachers were covered during NAS 2017. NAS assesses grade-level competencies. Students are administered grade-specific tests based on class-wise, subject-wise learning outcomes developed by NCERT. These learning outcomes have also been incorporated into the central rules for the Right to Education (RTE) Act in 2017, to serve as a guideline to states. The range of learning outcomes assessed by NAS 2017 varies with class and subject. The test instruments of present National Achievement Survey (2017) are competency-based and linked to learning outcomes recently developed by NCERT³⁰. NCERT developed two sets of test forms for each class, and the duration of the NAS test was roughly 2 hours. Students of Std III and V were required to attempt 45 questions on language, mathematics, and EVS. Students of Std VIII were required to attempt 60 questions on language, mathematics, science, and social science.

In India, NITI Aayog's vision and strategy document, Three-year Action Agenda (2017-18 to 2019-20), seeks to orient the system towards outcomes and implement a time-bound program with focus on ensuring that all children attain basic skills. Focusing on quality education, the central RTE (Right of Children to Free and Compulsory Education Act 2009) rules have been amended in 2017 to include class-wise, subject-wise learning outcomes for all elementary classes and also prepare guidelines for putting into practice Continuous and Comprehensive Evaluation, to achieve the defined learning outcomes. All of this indicates a clear global and national mandate for quality education, in general, and for improving learning outcomes in particular.

Performance in schools is increasingly judged on the basis of effective learning outcomes. Information is critical to knowing whether the school system is delivering good performance and to providing feedback for improvement in student outcomes.

“How can assessment and evaluation policies work together more effectively to improve student outcomes in primary and secondary schools?”

Evaluation and assessment of students, teachers, schools and education systems.

Many countries test samples and/or all students at key points, and sometimes follow students over time. International assessments such as PISA provide additional information and useful external comparators. Some countries also use inspection

services to evaluate teachers and/or schools and teacher evaluation is becoming more widely used. In all countries, there is widespread recognition that evaluation and assessment frameworks are keys to building stronger and fairer school systems. Countries also emphasize the importance of seeing evaluation and assessment not as ends in themselves, but instead as important tools for achieving improved student outcomes.

Assessment programs, of themselves, do not improve learning outcomes, but they do provide information so that policy makers, school principals, teachers and other stakeholders can develop appropriate policies and programs to improve students' learning. They also enable policy makers to better identify the kinds of professional learning and resources needed by school principals and teachers.

The effectiveness of evaluation and assessment relies to a great extent on ensuring that both those who design and undertake evaluation activities as well as those who use their results possess the proper skills and competencies. This is crucial to provide the necessary legitimacy to those responsible for evaluation and assessment.

Since evaluation has strong stakes for the units assessed and since school outcomes heavily depend on individual relationships and cooperation at the school level, successful feedback mechanisms require particular attention to developing competencies and defining responsibilities in the evaluation process.

In addition, competencies for using feedback to improve practice are also vital to ensure that evaluation and assessment procedures are effective. Assessment for improvement requires the inclusion of actors such as teachers in the process of school development and improvement. As a result, for instance, it is pertinent to include training for evaluation in initial teacher education alongside the development of research skills. Similarly, the preparation to become a school leader is expected to include educational leadership with some emphasis on feedback mechanisms. Particular groups such as inspectorates are also in a good position to engage in modeling and disseminating good practice in areas such as school assessment and teacher appraisal.

Evaluation and assessment frameworks have no value if they do not lead to the improvement of classroom practice and student learning. Securing effective links to

classroom practice is a key policy challenge in the design of evaluation and assessment frameworks.

Evaluation and assessment frameworks will not be able to improve student learning if they are not accompanied by appropriate incentives to motivate change and provide focused support for teachers in classrooms. Indeed, the focus on improving linkages to classroom practice is one of the most critical points for designing an effective evaluation and assessment framework.

Aligning educational standards and student assessment in standards-based systems, which are increasingly common across countries, governments set standards for student attainment, clearly defining the knowledge and skills students are expected to have attained at different stages of their education. The curriculum covers the objectives identified in standards, and student assessments focus on attainment of standards. The core logic of standards-based systems rests upon the alignment of these key elements. If the assessments do not well match the curriculum and the standards, then results have little value in judging how well students are learning and in diagnosing school or student needs.

Hence, policy needs to give considerable attention to sound strategies to assess performance against standards. Part of the strategy may consist of developing large-scale standardised tests - with a high degree of validity (i.e. the degree to which assessments and evaluations measure what they are intended to measure),

- Reliability (i.e. the consistency and stability of results across student populations)
- And usability (i.e. how policy makers, school leaders and teachers make sense of and respond to assessment and evaluation results).

Another possible strategy is to develop teacher capacity in assessing against standards, provide detailed guidelines on marking assessments and strengthen moderation processes between teachers and schools.

External assessment refers to standardised examinations that are designed and marked outside individual schools and normally take the form of a written test. The major advantage of external assessment is its high reliability. It ensures that all students are assessed on the same tasks and that their results are measured by the same standards. Moreover, external assessment is usually conducted in supervised conditions which ensure that the work being assessed has actually been done by the student.

However, external assessment is often criticized for having lower validity than teacher based assessment. It tends to be in the form of a written test under supervised conditions, so that only a limited range of curriculum goals can be covered. It can also have detrimental effects on teaching and learning. The risk is that teachers may end up focusing on test-taking skills, especially when high stakes for their students are attached to the test results. Teacher-based assessment refers to continuous assessment that is designed and/or marked by the students' own teachers. It is conducted internally in the classroom and counts towards a final grade or evaluation of the student. Teacher-based summative assessment may include different types of assessment such as teacher-made tests, classroom-embedded assignments, project work and portfolios. Typically, teacher-based assessment is presented in the literature as having higher validity than external assessment. Due to its continuous nature, teacher-based assessment often allows for important achievements to be measured that could not be captured in a final examination, such as extended projects, practical assignments or oral work.

However, teacher-based assessments are often perceived as unreliable. Test items and grading standards may vary widely between teachers and schools, so that the results of internal assessment will lack external confidence and cannot be compared across schools. There might also be a high risk of bias in teacher-based assessment, i.e. the assessment is unfair to particular groups of students. This indicates that a combination of teacher based and external assessments would be most suitable to ensure maximum validity and reliability. Learning outcomes that can be readily assessed in external examination should be covered this way, whereas more complex competencies should be accessed through continuous teacher-based assessment. Also, strategies to improve the reliability of teacher-based assessment include using scoring guides, negotiated scoring criteria, external benchmarks, training for teachers, multiple judgments and external moderation. Another approach is to develop on-demand assessments, where teachers can draw from a central bank of assessment tasks and ask students to take the assessment when they consider that they are ready to support school principals and teachers in evaluating their effectiveness at the school, class and individual student levels, in order to identify the best next steps for teaching and learning, and appropriate interventions where necessary.

- Ensuring that all stakeholders, especially school principals and teachers, are making better use of data both to measure student achievement and growth, and to evaluate the effectiveness of teachers' methods and school programs.
- The resulting reports provide teachers with diagnostic information for individual students and groups of students.
- Enables school principals to generate a school-level report to review overall school performance and enables teachers to generate class-level reports to review student outcomes by class and subject, and by student and subject.

1. OBJECTIVES OF THIS ACTION PLAN

Any assessment provides insights of present trend, the position and also comparison with other assesses. Assessments themselves will not give results, but they provide the direction in which one has to plan, and also focuses certain areas in which the system has plan and work. Thus this report has certain following objectives for the action plan.

1. To identify the low performing areas in each subject
2. To come up with diagnostic measures for such low achievement
3. To find the probable strategies for enhancing achievement of Los.

2. OBSERVATION OF RELATED LITERATURE:

1. Whether the students tested by NCERT were educated in government or government-aided schools did not affect the average scores across both states. The average scores remained largely similar in each subject for government and government-aided schools and never had a gap of more than five percentage points.
2. Staying in cities isn't helping urban students It appears various factors, such as economic development and easier access to education centers, have not proved advantageous for urban students.

Overcrowding in classrooms means less attention can be paid to the specific needs of each child, disruption increases and social dynamics are affected when the number of pupils grows.

3. In 2006, a study by the Azim Premji Foundation, which sought to establish a link between PTRs and learning outcomes, a survey of primary schools in Karnataka found that the optimal PTR was between 10:1 and 20:1. The PTR in suburban Mumbai however is 36:1,
4. The Times of India reported in October 2016, quoting data from the District Information System for Education (DISE) 2015-16; 18 schools in Mumbai's suburbs were even found to have a PTR of 100:1.
5. India has enrolled more children than ever before in secondary schools, but it is failing to teach them what they should be learning, according to an ongoing international study, funded by the University of Oxford, UK, India Spend reported on September 20, 2017.
6. Funding cuts aren't helping. As elementary education faces more cuts, test scores decline In an era when elementary education faces funding cuts, test scores decline as students progress from primary and upper primary (class three and five) to elementary education (class eight), our analysis showed.
7. In Maharashtra the average mathematics and language scores for class three fell from 65% and 71% respectively, to 40% and 62% in class eight. It's a similar picture in Karnataka where the transition from primary to elementary education produces a drop in attainment, with scores falling from an average of 74% and 76% in mathematics and language in class three, to an average of 50% and 62% in class eight.

Why is Karnataka doing better?

Across each class, students in Karnataka achieved higher average scores in maths and language than those in Maharashtra, the new data show. The class eight state average for maths in Karnataka was 50% compared to 40% across the border in Maharashtra.

What factors are leading to Karnataka's students scoring higher?

If we took sector expenditure on education to be representative of a state government's commitment to improving education standards and success in implementation, we would expect the education share of the Maharashtra state budget to be less than that of Karnataka's.

When comparing the states against key education infrastructure markers and resource gaps, there is no clear cut reason why Maharashtra performs significantly worse than Karnataka.

Both states have a comparable shortage of teachers, with Karnataka having 70% of the teachers it needs and Maharashtra 75%, according to a 2017 paper. Both states spend a comparable percentage of their education budgets on teacher training and teacher salaries: Maharashtra spends 72% on salaries, and Karnataka spends 79%, with Rajasthan allocating the most at 86%. Maharashtra and Karnataka both spend 0.4% and 0.5% of their education budgets on training teachers.

With similar expenditure allocations in both states and similar numbers of trained teachers (95% in Karnataka and 99% in Maharashtra), Maharashtra likely needs to focus on the quality of its education to narrow the gap in maths and language.

8. Even India's Richest States Are Failing to Give Students More Than Basic Literacy [Tish Sanghera March 14, 2018

while establishing trends in the NAS schools relative to other schools within the same district is informative, it is important to remember the variety of family, school, district, and design team factors that influence these scores. Research on student achievement has consistently found that individual family background variables dominate the effects of schools and teachers (Coleman et al., 1966; Jencks et al., 1972; Gamoran, 1987, 1992), and such effects are not controlled for when describing school-level test scores. More specific information than districts typically collect or make available is necessary to understand the relative effects of these factors on student achievement.

(https://www.rand.org/content/dam/rand/pubs/monograph_reports/MR1498/MR1498.c hap6.pdf)

9) In their article about the experience in Mexico, Felipe Martínez-Rizo and Juana E. Silva-Guerrero not only reflect on international but also national LSAs. They describe how the national assessment with its initial formative purposes became a high-stakes test that was used to rank schools and to evaluate individual teacher's performance without appropriate consideration of the context of specific schools, classes and students. The authors discuss that changes which have sought to address these issues have included giving Mexico's National Institute of Education Evaluation

(INEE) full autonomy and the creation of a new teacher assessment system. However, the authors argue that more time is needed before it is known whether or not these changes have led to a more appropriate use of results from LSAs.

10) Mollie Tobin, Dita Nugroho and Petra Lietz seek to summarise the impact of LSAs on education policy. To this end, the authors synthesize evidence from two systematic reviews on the topic, one conducted across all economically developing countries worldwide and one conducted across all countries in the Asia-Pacific region. As reflected in the contributions to this special issue, results show that LSAs mainly impact curricular reforms and performance standards. The evidence also indicates that LSAs are used by governments for accountability purposes and as leverage for certain political priorities, although these purposes are far outweighed by the use of LSAs for the monitoring of education quality and equity. Finally, again as illustrated by examples from various countries in this special issue, the studies found that high quality of assessment programmes and integration into policy processes facilitated the impact of LSAs on education policy whereas weak assessment bodies as well as financial constraints and funding uncertainty hindered impact.

<https://www.tandfonline.com/doi/full/10.1080/02671522.2016.1225918>

11) NAS is carried out by the Educational Survey Division (ESD) of the NCERT. The design and implementation of NAS 2017 included in its ambit school leaders, teachers, and a network of officials at the cluster, block, DIET, State Council of Educational Research and Training (SCERT) and Directorates of Education in various states and union territories.¹⁶ Field investigators from outside the government education system were engaged to conduct the assessment, with preference given to DIET students. A monitoring team comprising observers from inter-ministerial departments was tasked with observing the implementation of the survey.

3. Analysis and Identifying low achieving areas under NAS & CSAS (2017-18 & 2018-19)

Few areas where students scored below 40% in Shimoga district are identified. They are provided in the annexure. The lists of areas are listed class wise and subject wise.

Few areas which are listed are of general categories which are being collected from various assessments. The areas where our children performed very less is listed as below. The two classes 5th and 7th are taken in to consideration.

Subject	Class 5	Class 7
First language	Describing event	Using composition marks in a sentences 51%
	Writing informal letters	Think logically, analyze and conclude after reading, write answers accordingly
	Thinking logically and arriving at conclusion (for textual)	Able to answer/reason out after reading text
	Changing gender given in the sentence.	Communicate naturally according to situations answer in writing after discussion
		Analyze, extend the local anecdotes, phrases and adages in writing.
		Listen, understand the excursion reports and answer for the questions.
English	Listen and comprehend simple stories	Frames questions.
	Locate positions of Objects.	Answers textual questions.
	Solve the simple riddles.	Speaks about the importance of festivals or any other topic.
	Associate the parts of body with their functions.	Writes two or three sentences on a given topic.
	Read the simple words	Uses words expressing frequency of an action.
Maths	Solve day to day problems of multiplications, subtractions of decimals.	Fractions- Concept & mathematical operations
	Use geometrical instruments easily	Conversion from Base five to base ten
	Solve problems based on decimals with multiplication and subtraction	Algebra- application of equations & formula to solve problems
Science	Transformation of Energy	Geometrical shapes-Finding Area Perimeter & Volume
	Organ systems	
	States of Matter	

Social Science	Recognize longitude and latitude in globe.	Analyzing Factors influencing atmosphere on Europe
	Analyze the problems and reasons of urban community.	Analyzing the impact of religious reformation.
	Analyze the problems and reasons of rural community.	Discuss factors, Problems, and solutions of the children
	Describe the personality of king Asoka.	Describing educational system and impact of British education system

Source: DIET Reports.

4. Strategies for learning enhancement in identified areas.

The analysis of these assessment findings has mirrored issues in the areas

- Status of student learning
- Schools' academic status
- Feedback to the teachers' teaching learning processes.
- Academic Status of the cluster, block and district.
- Status of teacher education programmes and processes and related areas for improvisation.
- Need areas for intense interventions at cluster level.
- Need areas for Teacher education at block and district level.

The study calls for action areas at different levels, being-

Teacher level

School level

Cluster level

Block level

District level

State level

5.1 Teacher level:

- Identify the linkages and common patterns (if any) between the less attained competencies within the subject and across the classes.

- Teachers are to be enabled to engage in reflective practices related to identifying the root cause for low attainment of competencies, fundamental competencies related to the low achieved ones, and the nuances of complexities associated there by.
- Understanding the sequences inherent in the achievement of competencies.
- Getting sensitized to challenges and opportunities of students, through having independent discussions with group of students who have successfully achieved the competencies as well as with those, who have challenges in achieving.
- Drawing insights into the challenges faced by learners in the process of achievement of these competencies. Using appropriate tools for identifying challenges.
- Teacher to design learning environment where students with less attained competencies would actively engage in the learning process and achieve them.
- Design collaborative, peer learning, active learning, experiential learning strategies to proactively engage students in learning.
- Ensure attainment of competencies through relevant tools and techniques. Documenting the insights and effects acquired through all these processes.
- Shifting their perspectives from whole class approach to each child approach, so that every child could attain each competency and perform effectively in any assessment processes.

Based on all these processes teachers would be able to draw insights into the development of strategies for achievement of competencies being achieved less.

5.2 School Level:

Feedback obtained from the analysis of data, obtained from different assessments conducted in the current and previous year should form the basis of School academic plan.

- In this process, identification of correlation between the competencies less achieved across classes in each subject should be prepared,

- and plan should accommodate for integrated learning across subjects with processes that demand for collaboration between teachers and subjects should be designed and executed accordingly.
- For this, well designed strategies to integrate activities of curricular, gardening, library, mid-day meals, and morning assembly be planned and implemented continuously.
- Identify relevant resources in the community, organizations and neighborhood schools and network with them for mutual sharing, in order to achieve the competencies.
- Head teacher to regularly supervise class room teaching learning processes and provide feedback so as to facilitate children learning outcomes.
- Provide and create conducive sharing and learning platform for teachers, document insights drawn through such processes and integrate in the school academic plan.

5.3 Cluster level:

- Based on the analysis of data (of various standardised assessment processes) at the cluster level, the academic status of the cluster needed to be identified across various competencies and subjects.
- Competencies that are less achieved and better achieved are to be identified.
- Schools with better performance and less performing ones across subjects are to be identified.
- Competencies less attained, and reasons for their lesser attainment are to be brainstormed and root causes must be identified.
- Schools that have attained above the cluster average among the less attained competencies across subjects and those teachers are consulted for evolving strategies for better attainment across the cluster.
- Competencies that require better understanding and more resources are to be listed and consolidated and support of the block is sought.
- Create platforms for sharing of good classroom practices and strategies to replicate contextually.

- Identify teacher development need areas and consolidate and advocate for the respective teacher's training, during planning of teacher training.

5.4 Block level:

- Based on the analysis of data (of various cluster analysis) at the block level, the academic status of the block needed to be identified, across various competencies and subjects.
- Competencies at block level, that are less achieved and better achieved are to be identified. Clusters and schools with better performance and less performing ones across subjects must be identified.
- Based on the consolidated list of underperformed competencies, appropriate strategies to strengthen those competencies are evolved and support to CRPs to do so at cluster level be extended.
- Resources to improve competency attainment are to be listed, consolidated and provided with support to CRPs to mobilise them.
- Necessary support to strengthening of CRCs as resource units.
- Create platforms for sharing of good classroom practices and strategies to replicate contextually developed.
- Studies for the sole purpose of identifying contextual reasons are carried out at block level so that contextual solutions could be evolved.
- Specific Challenges in attainment of such competencies identified.
- Identify teacher development need areas and consolidate and advocate for the respective teacher's training, during planning of teacher training at DIETs.

5.5 District level:

- Based on the analysis of blocks' analysis of the results, consolidation of the thrust areas for immediate action must be undertaken at district level.
- Organize consultation meetings with teachers, resource persons and experts to identify the gap in the teacher made and the norm-based assessments.
- Cull out the developmental needs of teachers.
- Collate insights and learning from the process.

- Organize workshops and revisit the textbooks for understanding the exercise and assessment activities suggested in reference to the NAS & CSAS test items.
- Develop suitable teacher support materials to undertake competency-based teaching learning processes.
- Develop MRPs to provide onsite support to teachers accordingly.
- Organize workshops to enable teachers to develop competency based- unit wise, subject wise, class wise test items.
- Enable BRCos, CRPs, BRPs, ECos to be able to support and guide teachers to facilitate competency based teaching learning.
- Identify crucial areas for influencing the policy decisions like, transforming exercise items in the text books from content oriented to competency orientation leading to achieving Los.

5.5 State level policy and practice issues;

The schools, teachers, Text book and examination system has given much importance to content rather than age based learning outcome. Thus both at national and state level revamping the content based teaching and testing is of almost important.

- Aligning educational standards or LOs and student assessment in standards-based systems, which are increasingly common across countries, governments set standards for student attainment, clearly defining the knowledge and skills students are expected to have attained at different stages of their education. The curriculum covers the objectives identified in standards, and student assessments focus on attainment of standards. The core logic of standards-based systems rests upon the alignment of these key elements. If the assessments do not well match the curriculum and the standards, then results have little value in judging how well students are learning and in diagnosing school or student needs.

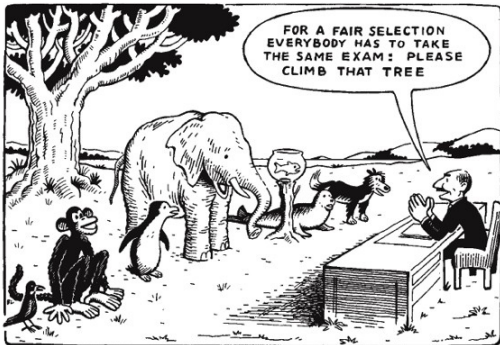
Hence, policy needs to give considerable attention to sound strategies to assess performance against age based Los or standards. Part of the strategy may consist of developing large-scale standardised tests - with a high degree of validity (i.e. the degree to which assessments and evaluations measure what they are intended to measure),

- reliability (i.e the consistency and stability of results across student populations)
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- Another possible strategy is to develop teacher capacity in assessing against Los/standards, provide detailed guidelines on marking assessments and strengthen moderation processes between teachers and schools.

External assessment refers to standardised examinations that are designed and marked outside individual schools and normally take the form of a written test. The major advantage of external assessment is its high reliability. It ensures that all students are assessed on the same tasks and that their results are measured by the same standards. Moreover, external assessment is usually conducted in supervised conditions which ensure that the work being assessed has actually been done by the student.

- Less focus for summative (Marks oriented) assessment; Learning is natural for every being. This learning cannot be defined but can be conceived as a beautiful



accident which occurs at some point of time. This accident occurs at much higher cognitive level in case of human beings.

During the last few decades, concerns have been repeatedly raised about the deteriorating quality of elementary education.

In a commitment of the nation to provide quality education to every child, Right to Education Act introduced CCE to ensure learning against the expected learning outcomes within the academic year with the required support systems in place. This required making provisions for appropriate infrastructure, curriculum, trained teachers, pedagogy, assessment, school/college working days, teaching hours along with empowering teachers and redressal of systemic issues including monitoring. Such provisions of child centered curriculum, teaching learning and assessment in a child friendly environment can ensure quality in education. There are many factors such as school/college and classroom environment, teacher pupil ratio, subject specific teachers, classroom processes and practices, assessment procedures and infrastructural aspects that contribute towards it. Each of

these being crucial towards quality improvement in education requires a conscious effort on every forum as only the synchronous effect of all can make a tangible difference towards quality attainment.

Early years of schooling being the formative period of development, a child is too young to understand failure and it is unfair to hold him or her accountable for



ಗೋಪಿಕೋಪ್ಪಲು: ಓದಿದ್ದು ನೆನಪಿನಲ್ಲಿ ಉಳಿಯುತ್ತಿಲ್ಲ ಎಂಬ ಆತಂಕದಿಂದ ದ್ವಿತೀಯ ಪಿಯು ವಿದ್ಯಾರ್ಥಿನಿ ಆತ್ಮಹತ್ಯೆ ಮಾಡಿಕೊಂಡಿರುವ ಘಟನೆ ಇಲ್ಲಿನ ಅರುವತ್ತೊಕ್ಕಲು ಗ್ರಾಮದಲ್ಲಿ ಶನಿವಾರ ನಡೆದಿದೆ.

ಶ್ರೀನಿವಾಸ್ ಎಂಬುವವರ ಪುತ್ರಿ ದರ್ಶಿನಿ (17) ಮೃತ ಯುವತಿ. ಕಾವೇರಿ ಕಾಲೇಜಿನಲ್ಲಿ ದ್ವಿತೀಯ ಪಿಯು ವಾಣಿಜ್ಯ ವಿಭಾಗದಲ್ಲಿ ವ್ಯಾಸಂಗ ಮಾಡುತ್ತಿದ್ದರು. ಈಚೆಗೆ ಪೂರ್ವಾಧ್ಯತಾ ಪರೀಕ್ಷೆ ಮುಗಿಸಿದ್ದರು. ಮನೆಯಲ್ಲಿ ಚೂಡಿದಾರ್ ವೆಲ್ ಬಳಸಿ ನೆಣು ಹಾಕಿಕೊಂಡಿದ್ದಾರೆ.

ಕೃಷ್ಣ ಮುನ್ನ ನನ್ನ ಸಾವಿಗೆ ನಾನೇ ಕಾರಣ. ಓದಿದ್ದು ನೆನಪಿನಲ್ಲಿ ಉಳಿಯದ ಕಾರಣ ಬೇಸರದಿಂದ ನೆಣು ದಿಗಿಡುಕೊಟ್ಟಿದ್ದೇನೆ' ಎಂದು ಪತ್ರ ಬರೆದಿದ್ದಾರೆ.

non-performance without putting all other pre requisites in place. Constant motivation and encouragement help children (even students of college) form a balanced personality, whereas, fear and humiliation demotivate and discourage them. It is the responsibility of the system including all stakeholders to ensure the essentials; be it quantitative (school/colleges, classrooms, teachers etc.,) or qualitative (curricular materials, classroom environment and processes etc.) measures in place so that each child receives quality elementary education without being harassed, humiliated or labeled.

Children face fear and anxiety if assessment (perceived as examination) is conducted in a manner that exposes them to punitive actions of labeling and humiliation. In this context, SBA was introduced as a mandatory requirement up to elementary stage under the RTE Act with the sole intent of reforming assessment with its prime purpose of improving children's learning to help them progress leading to their overall development. **But it is limited to elementary schools. Still in those schools SBA is not**

effectively implemented. There is no policy either from Central or state government in this arena. In case of higher education, SBA is not at all being considered.

Although efforts during the last few decades helped improve the quantitative aspects; be it the number of school/colleges, classrooms, teachers, enrolment, etc., yet the progress made towards addressing and improving the qualitative aspects has not been satisfactory. This is primarily because adequate attention has not been paid to the

teaching learning and assessment process in classrooms, which could be due to a limited understanding and a traditional perspective of viewing them in isolation.

Learning and Assessment: Learning and assessment being intertwined cannot be segregated or viewed in isolation from each other; therefore addressing the two in isolation may not serve the purpose. So, before we delve into the process of SBA, it is important to recognize the nature of learning and assessment in order to understand how children learn at the elementary level, as this in turn will determine how they can be assessed during the teaching-learning process. Some important aspects related to learning and assessments are given below.

Learning in schools is observed in different forms. Children learn many things at their own pace, interest, attitude etc., Learning is continuous and proceeds even after school hours. Students need to be facilitated for learning by providing required motivation and other support they expect.

Learning inside the classrooms, when qualitative - makes the process of learning more interesting and involving for the students. The more the interaction with the subject, teachers and peers the more will be the learning. Assessment of this learning is qualitative in nature. Qualitative assessment of children is formative and it gives a feedback of their progress. School based assessment has much focus on qualitative issues. This is certainly an indication of learning for students as well teachers' efforts in promoting learning. Assessment for learning is in built in the classroom processes and is an indicative of quality of learning. This when carried out continuously promotes quality learning among students.

Most of the times students learning assessed in classrooms do not get any attention of parents and other stakeholders of education. People are crazy about measuring student achievement in terms of marks. For them marks scored at the terminal examination indicates the standard of learning. This is even supported by the Government also. We observe many times, the students who have performed well in summative examination, do not come out with such a distinction in selection examinations like NEET, JEE etc., This needs to be taken care of. Instead of focusing much on summative aspects if we were to provide qualitative inputs of learning, it would be more rewarding for students to achieve more and more. Thus focus on

summative achievement must also be reduced and formative assessment against attainment of Los must be focused.

- Global initiatives: The economic and social climate of the globe is changing faster than ever. Through a series of 'global conversations' UN has put many goals/targets at the focal point of action for governments and citizens. Education is a key goal in the list of Sustainable Development Goals. With SDG 4, the international community has pledged to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." The World Bank's World Development Report 2018 warns of a 'learning crisis' in global education.

The report offers three policy recommendations:

- assess learning, so that it becomes measurable goal;
- make schools work for all children; and
- Mobilize everyone who has stakes in learning.

The Sustainable Development Goal for education (SDG 4) call for an increased focus on learning outcomes, with five of the ten targets highlighting learning skills and outcomes of children and adults. However, it is extremely difficult to monitor these educational developments and meet the targets because not all countries conduct national assessments or participate in regional and cross-national assessments of learning. This poses a significant challenge in providing initial information for SDG 4 monitoring and reporting

ANNEXURES**Class: 5th standard****Subject :Kannada**

No.	Competency
KAN 501	ಓದಿದಘಟನೆ ಸನ್ನಿವೇಶ, ಕಥೆ, ಕವಿತೆಗೆ ಸೂಕ್ತ ಶಿರೋನಾಮೆ ನೀಡುತ್ತಾರೆ
KAN 506	ಹೊಸ ಪದಗಳ ಅರ್ಥ ತಿಳಿಯುವರು
KAN 510	ಓದಿದ ಸಾಹಿತ್ಯವನ್ನು ಅರ್ಥೈಸಿಕೊಂಡು ಕೇಳುವ ಪ್ರಶ್ನೆಗಳನ್ನು ತಿಳಿಸುವರು

Subject :Maths

No.	Competency
MATHS 516	Identify multitise of a given numbers
MATHS 519	Locate $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, on the number line
MATHS 523	Compare the objects of long length with short length & find the relation between them

Class: 6th standard**Subject :Kannada**

No.	Competency
KAN 620	ಪಠ್ಯ ವಸ್ತುವಿನಲ್ಲಿ ವಿಷಯಗಳನ್ನು ಸರಿಯಾದಕ್ರಮಾನುಗತವಾಗಿಹೊಂದಿಸಿ ಬರೆಯುವರು

Subject :English

No.	competency
ENG 607	Identifies the term of the ongoing actions
ENG 627	arranges the words in an alphabetical order

Subject :Maths

No.	competency
MATHS 602	ಐದು (5) ಅಂಕಗಳ ಸಂಖ್ಯೆಗಳನ್ನು ಏರಿಕೆ / ಇಳಿಕೆ ಕ್ರಮದಲ್ಲಿಜೋಡಿಸುವರು.
MATHS 610	ದತ್ತ ಪೂರ್ಣ ಸಂಖ್ಯೆಗಳಿಗೆ ಸಂಖ್ಯೆಗಳ ಮೇಲಿನ ಗುಣಲಕ್ಷಣಗಳನ್ನು ಅನ್ವಯಿಸುವರು (ಗುರುತಿಸುವರು) [ಪರಿವರ್ತನೀಯ, ಸಹವರ್ತನೀಯ, ವಿಭಾಜಕ ನಿಯಮ]
MATHS 623	ಕೊಟ್ಟಿರುವ ಸಂಖ್ಯೆಗಳ ಮೊತ್ತ, ವ್ಯತ್ಯಾಸ ಮತ್ತುಗುಣಲಬ್ಧವನ್ನುಅಂದಾಜಿಸುವರು.

Subject :Science

No.	Competency/Concept
SCI608	Gives the examples for the animal and plant fiber
SCI612	Groups the objects based on the types of material theyare made of
SCI619	Describes the ways of changing the shape/size
SCI623	Identifies flowering and non-flowering plants

Class: 6 Subject :Social Science

No.	Concept
SS618	ಗುಪ್ತರ ಸಾಧನೆಯ ಬಗ್ಗೆ ಸ್ಮರಿಸಿಕೊಳ್ಳುವರು

Class: 7**Subject :Kannada**

No.	Competency
KAN709	ಪರಿಚಿತ ಪಠ್ಯಾಂಶದಲ್ಲಿನ ಏಕೆ? ಎಂಬ ಪ್ರಶ್ನೆಗೆ ಉತ್ತರಿಸುವರು.

Subject :English

No.	Competency
ENG709	Engages in informal conversation
ENG710	Engages in informal conversation

Subject :Maths

No.	competency/Concept
MATH 704	ನಿತ್ಯಜೀವನದಲ್ಲಿನ ದಶಮಾಂಶ ಸಮಸ್ಯೆಗಳನ್ನು ಬಿಡಿಸುವರು
MATH 710	ಪೂರ್ಣಾಂಕಗಳ ಪರಿವರ್ತನೆಯ, ಸಹವರ್ತನೆಯ ಮತ್ತು ವಿತರಣಾ ಗುಣಗಳನ್ನು ಮೂಲ ಕ್ರಿಯೆಗೆ ಅನ್ವಯಿಸುವರು.
MATH 713	ದತ್ತ ಭಿನ್ನರಾಶಿಯ ವುತ್ಕಮವನ್ನು ಬರೆಯುವರು.
MATH 714	ಭಿನ್ನರಾಶಿಗಳ ಭಾಗಾಕಾರ ಮತ್ತು ಗುಣಾಕಾರಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಹೇಳಿಕೆಯ ಸಮಸ್ಯೆಗಳನ್ನು ಬಿಡಿಸುವರು.
MATH 717	ದಶಮಾಂಶಗಳ ಭಾಗಾಕಾರ, ಗುಣಾಕಾರಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ನಿತ್ಯಜೀವನದ ಸಮಸ್ಯೆಗಳನ್ನು ಬಿಡಿಸುವರು.

Subject :Science

No.	Learning outcome/Concept
SCI 709	Interprets velocity time graph of an object moving in non uniform motion
SCI711	Interprets velocity time graph of an object moving in non uniform motion
SCI723	Lists the uses of acid bases and salts

Class 8th**Subject : Kannada,**

No.	competency
KAN811	ಕೊಟ್ಟಿರುವ ಪ್ರಬಂಧವನ್ನು ಓದಿ ಅರ್ಥೈಸಿಕೊಂಡು ಸರಳ ವಾಕ್ಯಗಳಲ್ಲಿ ಅಭಿವ್ಯಕ್ತಪಡಿಸುವರು.
KAN814	ನುಡಿಗಟ್ಟು, ನಾಣ್ಯಡಿಗಳ ಅರ್ಥವನ್ನು ಗ್ರಹಿಸಿ ಅಭಿವ್ಯಕ್ತಿಸುವರು.

Subject :Maths

No.	Learning outcome/Concept
MATH805	ದೈನಂದಿನ ಸಮಸ್ಯೆಗಳಲ್ಲಿ ಸುತ್ತಳತೆ ಮತ್ತು ವಿಸ್ತೀರ್ಣದ ಪರಿಕಲ್ಪನೆಗಳನ್ನು ಅನ್ವಯಿಸುವರು
MATH807	ಕೊಟ್ಟಿರುವ ಮಾಯಾಚೌಕದಲ್ಲಿ ಖಾಲಿ ಜಾಗವನ್ನು ತುಂಬುವರು
MATH827	ಯೂಕ್ಲಿಡ್‌ನ ಆಧಾರ ಪ್ರತಿಜ್ಞೆಗಳನ್ನು ಗುರುತಿಸುವರು.
MATH830	ತ್ರಿಭುಜದ ಒಳಕೋನಗಳ ಮೇಲಿನ ಸಮಸ್ಯೆಯನ್ನು ಬಿಡಿಸುವರು.

Subject : Science

No.	Learning outcome/Concept
SCI809	Calculates the mass of Deuterium
SCI810	Calculates the percentage mass of the elements present in a given compound
SCI812	Analyses the movement of atoms form of different concentrations and indicates the type of transport
SCI814	Gives reasons for adding human to mamalian class and primate order by classification
SCI816	Analyses the symptoms and preventive measures to identify the disease
SCI819	Calculates the speed and velocity to arrive at a conclusion.
SCI823	Identifies the units of physical quantisers
SCI826	Identifies the allotropic of carbon by on the basis of crystalline nature.

Subject : Social Science

No.	Learning outcome/Concept
SS807	Analyzes how the Roman Civilization contributed to the development of Science
SS813	Explains the formation of different types of rocks.
SS814	Distinguishes between different types of rocks.
SS822	Analyzes the importance of studying Political Science
SS826	Explains the importance of deversity in a society.
SS828	Analyzes how the study of Economic helps in redressing basic economic problems

CLASS:- 9**Subject : Kannada**

No.	competency
KAN919	ದೈನಂದಿನ ಜೀವನದಲ್ಲಿ ಒಂದು ಕಾರ್ಯಕ್ರಮದ ವರದಿ ಮಾಡುವುದನ್ನು ತಿಳಿಯುವರು
KAN922	ತಾವು ಓದಿದ ಕಥೆಯಲ್ಲಿನ ಸಾರಾಂಶ ಅರಿತು. ಪ್ರತಿಕ್ರಿಯೆ ನೀಡುವರು

Subject : English

No.	competency
ENG901	Can arrange words in direction
ENG913	Can ask a relevant question based on the poster
ENG916	Can identify appropriate adjectives from the given sentences
ENG918	Can identify appropriate synonyms that can be used in a sentence
ENG926	Applies correct gender in framing new sentences
ENG927	Can arrange words in direction
ENG928	Uses appropriate punctuation in a poem/rhyme
ENG930	Solves word puzzles

Subject : Maths

No.	Learning outcome/Concept
MATH911	ಯೂಕ್ಲಿಡ್‌ನ ನಿಯಮಗಳನ್ನು ನೆನಪಿಸಿಕೊಳ್ಳುವರು.
MATH914	ಪ್ರಮೇಯಗಳನ್ನು ಬಳಸಿ ಸಮಸ್ಯೆಗೆ ಪರಿಹಾರ ಕಂಡುಹಿಡಿಯಲು ತಿಳಿಯುವರು.
MATH919	ಪ್ರಮೇಯಕ್ಕೆ ಸಂಬಂಧಪಟ್ಟ ಲೆಕ್ಕ ಬಿಡಿಸಲು ತಿಳಿಯುವರು.
MATH925	ತ್ರಿಭುಜದ ಮಧ್ಯಬಿಂದು ಪ್ರಮೇಯವನ್ನು ಬಳಸಿ ಸಮಸ್ಯೆಗೆ ಪರಿಹಾರ ತಿಳಿಯುವರು.
MATH930	ಸಮಾಂತರ ಚತುರ್ಭುಜದ ಕರ್ಣಗಳು ಸಮವಾದಾಗ ಅದು ಒಂದು ಆಯತವಾಗುವುದು ಎಂದು ತಿಳಿಯುವರು

Subject : Science

No.	Learning outcome/Concept
SCI902	Differentiates between the homogenous and heterogeneous mixture.
SCI906	Identifies the function of a stated part of a flower.
SCI909	Reasons the cooling effect after evaporation in different situations.
SCI911	Distinguishes between solutions and suspensions.
SCI914	Identifies the sequence or processes for separating a given Mixture
SCI916	Distinguishes between prokaryotic and eukaryotic cell.
SCI917	Reasons the change in a cell when kept in different type of

	Solutions
SCI918	Explains the function of cell organelles.
SCI919	Differentiates types of muscular tissue based on their Characteristics
SCI921	Differentiates the epithelial tissue based on shape.
SCI922	Identifies the plant tissue on the basis of cell wall.
SCI923	Differentiates speed and velocity.

Subject : Social Science

No.	Learning outcome/Concept
SS907	Lists the contributions of the different dynasties of Medieval India.
SS909	Differentiates between the different philosophies of Indian religious reformers
SS916	Justifies the importance of family

Class: 10**Subject : Kannada**

No.	Competency
KAN0123.	ಗದ್ಯಭಾಗದಲ್ಲಿ ಬಂದಿರುವ ಸಾಮಾನ್ಯ ಅವ್ಯಯವನ್ನು ಗುರುತಿಸುವುದು.

Subject : English

No.	Competency
ENG0104	Answers simple questions based on a biography
ENG0105	Completes the mind map given on the basis of a biography
ENG0106	Identifies the central theme of the poem
ENG0110	Completes an incomplete conversation/dialogue
ENG0112	Completes an incomplete conversation/dialogue
ENG0114	Interprets the main idea of the letter
ENG0116	Infers specific details from the letter.
ENG0124	Converts sentences from active to passive voice
ENG0125	Uses appropriate prefix to form opposite words
ENG0126	Identifies the appropriate homophones from a given set
ENG0127	Replaces select words in a sentence with the appropriate synonyms

Subject : Maths

No.	Learning outcome/Concept
MATH0103	Solves word problems based on sum of an A.P.
MATH0106	Knows the meaning of the basic proportionality theorem

MATH0113	Given the equation of one line, selects a line parallel to it
MATH0114	Solves a word problem using linear equations in two unknowns
MATH0116	Uses the relationship between radius and tangent at the point of contact to find relationships between angles
MATH0117	Applies the fact that tangents from an external point to a circle are equal in length
MATH0118	Uses proportion to find the area of a given sector of a circle
MATH0120	Solves word problems based on area of sector and circle
MATH0123.	Justifies a construction
MATH0124.	Knows Pythagoras' theorem
MATH0126	Understands the meaning of a point of trisection.
MATH0128	Understands the process to find the HCF by Euclid's division Lemma

Subject : Science

	Learning outcome/Concept
SCI0112	Relates the properties of metals with its applications.
SCI0116	Explains the function of various components in digestive system
SCI0121	Explains the coordination in plants like response to stimulus and movement due to growth.
SCI0127	Recognizes the rules for the working of electric motor & generator.

Subject : Social Science

No.	Learning outcome/Concept
SS0111	Identifies the European settlements in India from 1510-1674 in an outline map of India
SS0115	Analyzes the reasons for the first war of independence

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