





# **NAS 2017**

# **NATIONAL ACHIEVEMENT SURVEY**

**Class: 3, 5 and 8** 

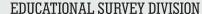
# ANDAMAN & NICOBAR ISLANDS State Learning Report



The National Achievement Survey (NAS) was conducted throughout the country on November 13, 2017 for Classes 3, 5 and 8 in government and government aided schools. The survey tools used multiple test booklets with 45 questions in Classes III and V and 60 questions in Class VIII in Mathematics, Language, Sciences and Social Sciences. The competency based test questions developed, reflected the Learning Outcomes developed by the NCERT which were recently incorporated in the RTE Act by the Government of India. Along with the test items, questionnaires pertaining to students, teachers and schools were also used.

The learning levels of 2.2 million students from 1,10,000 schools across 701 districts in all 36 States/UTs were assessed. The findings of the survey, will help guide education policy, planning and implementation at national, state, district and classroom levels for improving learning levels of children and bringing about qualitative improvements.





राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद् National Council of Educational Research and Training Sri Aurobindo Marg, New Delhi - 110016



# **HIGHLIGHTS**

**In Class 3,** on an average, the correct responses to the subjects were as follows:



Mathematics EVS

In Class 5, on an average, the correct responses to the subjects were as follows:





**In Class 8,** on an average, the correct responses to the subjects were as follows:



(+ <del>-</del> 34% Mathematics

36%

36%



78%

Children could understand what the teacher says in the classroom.



of the school buildings need significant repair.

# Highest Performing Learning **Outcomes**

- E314: voices opinion on good/bad touch, water in family and school (74)
- **M516:** collects data related to various daily life situations, represents it in tabular form and as bar graphs and interprets it
- M317: reads the time correctly to the hour using a clock/watch (78)
- M309: identifies and makes 2D-shapes by paper folding, paper cutting on the dot grid, using straight lines etc (81)
- M319: Records data using tally marks, represents pictorially and draws conclusions (81)

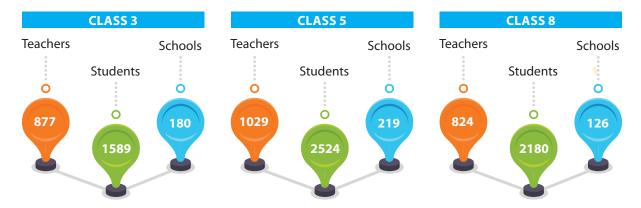
# **Lowest Performing Learning Outcomes**

- **SCI711:** Constructs models using materials from surroundings and explains their working (21)
- **SST816:** Analyses the decline of preexisting urban centers and handicraft the colonial period (22)
- **M710:** solves problems related to conversion of percentage to fraction and decimal and vice versa (23)
- **M706:** Uses exponential form of numbers to simplify problems involving multiplication and division of large numbers (23)
- **SST823:** Applies the knowledge of the Fundamental Rights to find out about their violation, protection and promotion in a given situation (23)

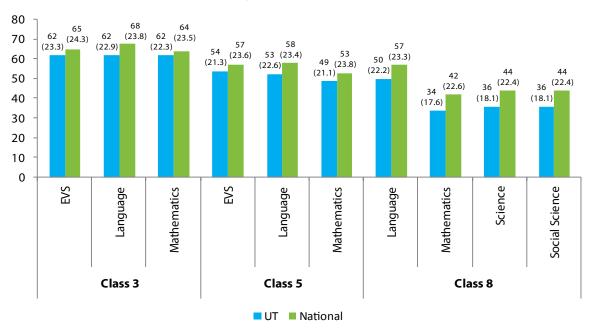


# **Participation**

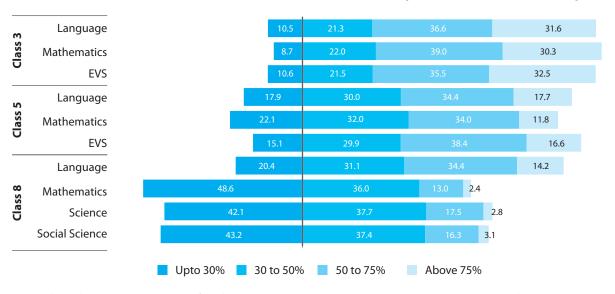
#### **Andaman & Nicobar Islands - 3 Districts**



# Average Achievement by Classes and Subjects



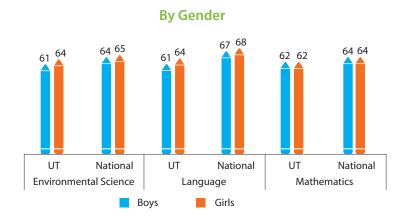
# Distribution of Students Achievement by Classes and Subjects

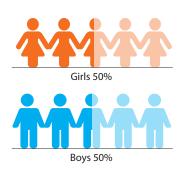


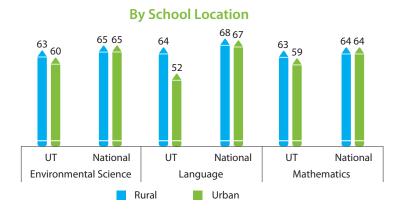
E.g. In Class 3 language, percentage of students achieving upto 30% is 10.5, between 30%-50% is 21.3, between 50%-75% is 36.6 and above 75% is 31.6.

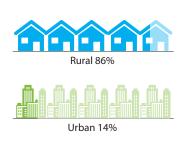
# **Class 3** State Results by Student Groups

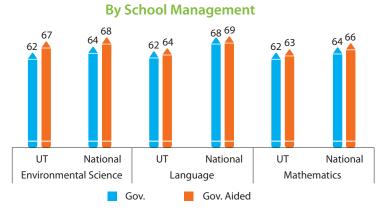
#### PERFORMANCE PARTICIPATION

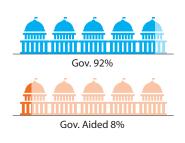




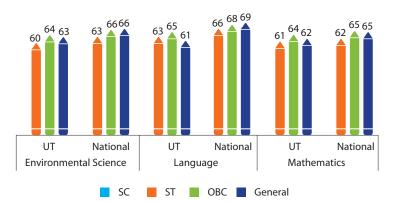


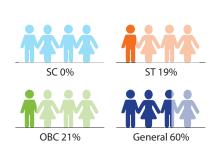






# **By Social Groups**



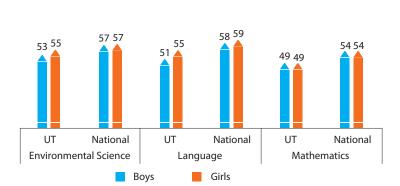


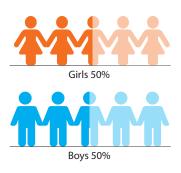
# **Class 5** State Results by Student Groups

#### **PERFORMANCE**

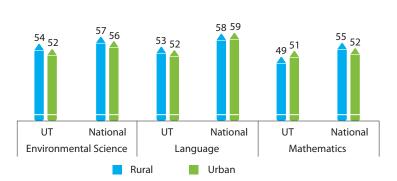
#### PARTICIPATION

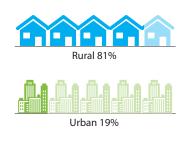
**By Gender** 



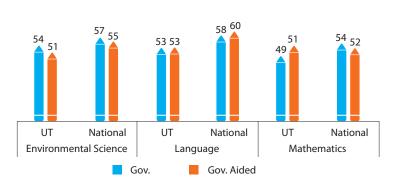


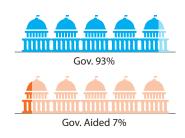
**By School Location** 



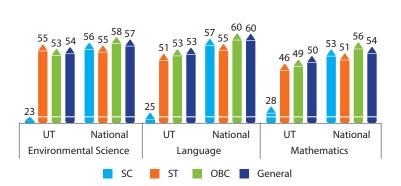


**By School Management** 





**By Social Groups** 

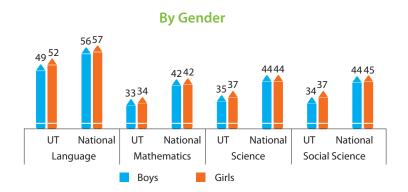


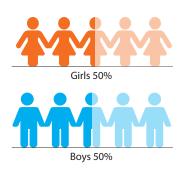


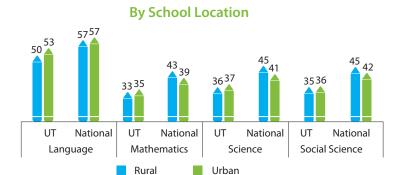
# **Class 8** State Results by Student Groups

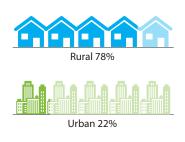
#### **PERFORMANCE**

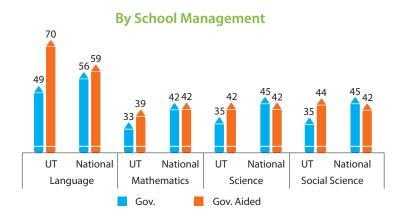
#### **PARTICIPATION**

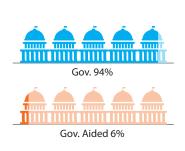


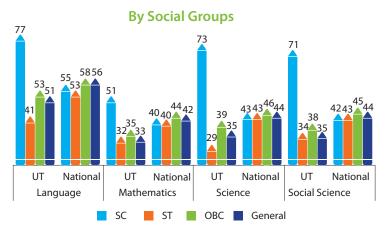














# What children say about schools?



**97%** children in Class 3, **95%** in Class 5 and Class 8 like to come to school.



**24%** students across the grades find it difficult to travel to school.

72% children in Class 3, 78% in Class 5 and77% children in Class 8 could understand what the teachers say in the classroom.



For **51%** students in Class 3 and 8 and **50%** students in Class 5, the language used at home and by the teachers is the same.



**85%** students in Class **3, 83%** in Class 5 and **88%** students in Class 8 go out and play during the games period.

# What teachers responded?



51% teachers in Class 3,



52% in Class 5 and



83% in Class 8 are teaching the same subjects they have pursued during their higher studies.



56% teachers in the state fully understand the curricular goals.



teachers responded that there is lack of adequate toilet facilities.



teachers responded that there is lack of drinking water facilities.



teachers responded that the school buildings needs significant repair.



teachers responded that there is lack of electricity.



Teachers in the state opined that they are overloaded with work.



Teachers in the state are highly satisfied with their job.



Teachers in the state have adequate instructional material and supplies.



Teachers in the state have adequate work space.

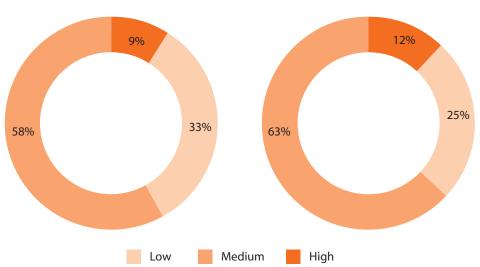
# How do teachers assess children in the classroom?

	Never (in %)	For some lessons (in %)	Almost every lesson (in %)
Oral Tests	2	28	70
Written Tests	2	42	56
Multiple choice type	3	39	58
Observation	2	24	74
Home assignments	3	42	54
Student self assessment	4	64	32
Project work	2	67	31
Peer assessment	6	67	27
Portfolio	12	63	24

# What teachers say about parent's involvement?

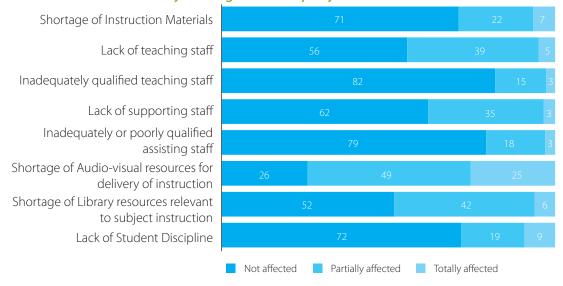
#### Parental support for students' Achievement

#### Parental involvement in school activities



# What the head teacher responded?

#### School activities affected by shortage or inadequacy



E.g. 71% of the head teacher responded that the school activities were not affected by the shortage of instructional materials.

# Average Performance of the District

### Class 3

# District Name District Mean Middle and North Andaman Nicobar 64 Andaman 59

### Class 5

District Name	District Mean
Middle and North Andaman	53
Nicobar	53
Andaman	50

### Class 8

District Name	District Mean
Middle and North Andaman	40
Nicobar	38
Andaman	35

# Performance of the State in Learning Outcomes (LOs)

Annex-1

LO Code	Learning Outcome Class 3	Амакана
LO Code	Learning Outcome Class 5	Average Performance
		(in Percent)
	EVS	
E302	Identifies simple features (e.g. movement, at places found/ kept, eating habits, sounds) of animals and birds in the immediate surroundings	52
E303	Identifies relationships with and among family members	53
E304	Identifies objects, signs (vessels, stoves, transport, means of communication, transport, signboards etc.), places (types of houses/shelters, bus stand, petrol pump etc.) activities (works people do, cooking processes, etc.) at home/school/neighbourhood	63
E305	Describes need of food for people of different age groups, animals/birds, availability of food and water and use of water at home and surroundings	67
E307	Groups objects, birds, animals, features, activities according to differences/similarities using different senses. (e.g. appearance/place of living/ food/ movement/ likes-dislikes/ any other features)	68
E309	Identifies directions, location of objects/places in simple maps using signs/symbols/verbally	57
E310	Guesses properties, estimates quantities of materials/ activities in daily life and verifies using symbols/non-standard units	58
E311	Records observations, experiences, information on objects/ activities/places visited in different ways and predicts patterns etc	52
E313	Observes rules in games (local, indoor, outdoor)	38
E314	Voices opinion on good/bad touch, stereotypes for tasks/ play/food in family w.r.t gender, misuse/wastage of food and water in family and school	74
	Language	
L304	Reads small texts with comprehension i.e., identifies main ideas, details, sequence and draws conclusions	63
L312	Reads printed scripts on the classroom walls: poems, posters, charts etc	62
Mathematics Mathematics		
M301	Reads and writes numbers up to 999 using place value	59
M302	Compares numbers up to 999 based on their place values	65

LO Code	Learning Outcome Class 3	Average Performance (in Percent)
M303	Solves simple daily life problems using addition and subtraction of three digit numbers with and without regrouping	54
M304	Constructs and uses the multiplication facts (up till 10) in daily life situations	64
M305	Analyses and applies an appropriate number operation in the situation/ context	58
M306	Explains the meaning of division facts by equal grouping/ sharing and finds it by repeated subtraction	58
M309	Identifies and makes 2D-shapes by paper folding, paper cutting on the dot grid, using straight lines etc	81
M311	Fills a given region leaving no gaps using a tile of a given shape	54
M312	Estimates and measures length and distance using standard units like centimetres or metres & identifies relationships	40
M317	Reads the time correctly to the hour using a clock/watch	78
M318	Extends patterns in simple shapes and numbers	51
M319	Records data using tally marks, represents pictorially and draws conclusions	81

LO Code	Learning Outcome Class 5	Average Performance (in Percent)	
	EVS	(iii i ci cciit)	
E403	Identifies relationship with and among family members in extended family	53	
E410	Records observations/experiences/information for objects, activities, phenomena, places visited in different ways and predicts patterns and activities/ phenomena	58	
E501	Explains the super senses and unusual features (sight, smell, hear, sleep, sound, etc.) of animals and their responses to light, sound, food etc	53	
E503	Describes the interdependence among animals, plants and humans	53	
E504	Explains the role and functions of different institutions in daily life (Bank, Panchayat, cooperatives, police station, etc.)	62	
E505	Establishes linkages among terrain, climate, resources (food, water, shelter, livelihood) and cultural life. (e.g. life in distant/difficult areas like hot/cold deserts)	26	
E506	Groups objects, materials, activities for features/properties such as shape, taste, colour, texture, sound, traits etc	31	
E507	Traces the changes in practices, customs, techniques of past and present through coins, paintings, monuments, museum etc. and interacting with elders	53	
E508	Guesses (properties, conditions of phenomena), estimates spatial quantities (distance, area, volume, weight etc.) and time in simple standard units and verifies using simple tools/set ups	48	
E509	Records observations/experiences/information in an organized manner (e.g. in tables/ sketches/ bar graphs/ pie charts) and predicts patterns in activities/phenomena to establish relation between cause and effect	52	
E510	Identifies signs, directions, location of different objects/ landmarks of a locality /place visited in maps and predicts directions w.r.t. positions at different places for a location	63	
E512	Voices opinions on issues observed/experienced and relates practices /happenings to larger issues of society	47	
E513	Suggests ways for hygiene, health, managing waste, disaster/ emergency situations and protecting/saving resources	61	
Language			
L504	Reads and comprehends independently storybooks, news items/ headlines, advertisements etc	52	
L508	Reads text with comprehension, locates details and sequence of events	52	

LO Code	Learning Outcome Class 5	Average Performance (in Percent)
	Mathematics	
M401	Applies operations of numbers in daily life situations	44
M412	Explores the area and perimeter of simple geometrical shapes (triangle, rectangle, square) in terms of given shape as a unit	52
M418	Calculates time intervals/duration of familiar daily life events by using forward or backward counting/addition and subtraction	61
M421	Represent the collected information in tables and bar graphs and draws inferences from these	56
M501	Reads and writes numbers bigger than 1000 being used in her/his surroundings	52
M504	Estimates sum, difference, product and quotient of numbers and verifies the same using different strategies like using standard algorithms or breaking a number and then using operation	44
M505	Finds the number corresponding to part of a collection	53
M506	Identifies and forms equivalent fractions of a given fraction	44
M508	Converts fractions into decimals and vice versa	61
M509	Classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing	52
M512	Relates different commonly used larger and smaller units of length, weight and volume and converts larger units to smaller units and vice versa	46
M513	Estimates the volume of a solid body in known units	28
M514	Applies the four fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals	37
M515	Identifies the pattern in triangular number and square number	45
M516	Collects data related to various daily life situations, represents it in tabular form and as bar graphs and interprets it	75

LO Code	Learning Outcome Class 8	Average Performance (in Percent)		
	Language			
L813	Read textual/non-textual materials with comprehension and identifies the details, characters, main idea and sequence of ideas and events while reading	50		
	Mathematics			
M601	Solves problems involving large numbers by applying appropriate operations	29		
M606	Solves problems on daily life situations involving addition and subtraction of fractions / decimals	31		
M620	Finds out the perimeter and area of rectangular objects in the surroundings like floor of the class room, surfaces of a chalk box etc	29		
M621	Arranges given/collected information in the form of table, pictograph and bar graph and interprets them	31		
M702	Interprets the division and multiplication of fractions	32		
M705	Solves problems related to daily life situations involving rational numbers	32		
M706	Uses exponential form of numbers to simplify problems involving multiplication and division of large numbers	23		
M707	Adds/subtracts algebraic expressions	38		
M710	Solves problems related to conversion of percentage to fraction and decimal and vice versa	23		
M717	Finds out approximate area of closed shapes by using unit square grid/ graph sheet	32		
M719	Finds various representative values for simple data from her/his daily life contexts like mean, median and mode	44		
M721	Interprets data using bar graph such as consumption of electricity is more in winters than summer	31		
M801	Generalises properties of addition, subtraction, multiplication and division of rational numbers through patterns	25		
M802	Finds rational numbers between two given rational numbers	35		
M803	Proves divisibility rules of 2, 3,4, 5, 6, 9 and 11	45		
M804	Finds squares, cubes, square roots and cube roots of numbers using different methods	29		
M808	Use various algebraic identities in solving problems of daily life	48		
M812	Verifies properties of parallelogram and establishes the relationship between them through reasoning	28		
M818	Finds surface area and volume of cuboidal and cylindrical object	31		
M819	Draws and interprets bar charts and pie charts	31		

LO Code	Learning Outcome Class 8	Average
		Performance (in Percent)
	(iii i cicciit)	
SCI703	Classifies materials and organisms based on properties/ characteristics	34
SCI704	Conducts simple investigation to seek answers to queries	31
SCI705	Relates processes and phenomenon with causes	36
SCI708	Measures and calculates e.g., temperature; pulse rate; speed of moving objects; time period of a simple pendulum, etc	30
SCI710	Plots and interprets graphs	32
SCI711	Constructs models using materials from surroundings and explains their working	21
SCI801	Differentiates materials, organism and processes	51
SCI804	Relates processes and phenomenon with causes	35
SCI805	Explains processes and phenomenon	29
SCI807	Measures angles of incidence and reflection, etc	36
SCI811	Applies learning of scientific concepts in day-to-day life	34
SCI813	Makes efforts to protect environment	49
	Social Science	
SST605	Identifies latitudes and longitudes, e.g., poles, equator, tropics, States/UTs of India and other neigh-bouring countries on globe and the world map	37
SST610	locates important historical sites, places on an outline map of India	33
SST625	Describes the functioning of rural and urban local government bodies in sectors like health and education	34
SST703	Explains preventive actions to be undertaken in the event of disasters	62
SST704	Describes formation of landforms due to various factors	32
SST722	Explains the significance of equality in democracy	31
SST726	Describes the process of election to the legislative assembly	33
SST731	Explains the functioning of media with appropriate examples from newspapers	38
SST733	Differentiates between different kinds of markets	34
SST734	Traces how goods travel through various market places	37
SST802	Describes major crops, types of farming and agricultural practices in her/his own area/state	44
SST805	Locates distribution of important minerals e.g. coal and mineral oil on the world map	36
SST807	Justifies judicious use of natural resources	48
SST809	Draws interrelationship between types of farming and development in different regions of the world	37

LO Code	Learning Outcome Class 8	Average Performance (in Percent)
SST810	Distinguishes the modern period from the medieval and the ancient periods through the use of sources	34
SST815	Explains the origin, nature and spread of the revolt of 1857 and the lessons learned from it	31
SST816	Analyses the decline of pre-existing urban centers and handicraft industries and the development of new urban centers and industries in India during the colonial period	22
SST818	Analyses the issues related to caste, women, widow remarriage, child marriage, social reforms and the laws and policies of colonial administration towards these issues	27
SST823	Applies the knowledge of the Fundamental Rights to find out about their violation, protection and pro-motion in a given situation	23
SST827	Describes the process of making a law. (e.g. Domestic Violence Act, RTI Act, RTE Act)	37
SST831	Identifies the role of Government in providing public facilities such as water, sanitation, road, electricity etc., and recognizes their availability	26
SST833	Draws bar diagram to show population of different countries/ India/states	56

# **Core Team**

#### **MHRD**

Ms. Rina Ray, Secretary, School Education and Literacy (SE&L)

**Shri Anil Swarup,** Former Secretary, School Education & Literacy, SE&L, (till 30<sup>th</sup> June 2018)

Ms. Anita Karwal, Chairperson, CBSE and Chairperson, NCTE

Shri. Maneesh Garg, Joint Secretary, School Education and Literacy (SE&L)

Shri. Girish Chandrashekhar Hosur, Director, School Education and Literacy (SE&L)

Ms. R. Savithri, DDG, Statistics

#### **NCERT**

Prof. Hrushikesh Senapaty, Director, NCERT

Prof. Indrani Bhaduri, Head, ESD and National Coordinator NAS

Prof. Sridhar Srivastava, Professor, ESD

Prof. Veer Pal Singh, Professor, ESD

**Prof. A.D. Tewari**, Professor, ESD

**Dr. Pratima Kumari**, Associate Professor

Dr. Sukhvinder, Assistant Professor

**Dr. Vishal D. Pajankar**, Assistant Professor

**Dr. Satya Bhushan,** Assistant Professor

**Dr. Gulfam**, Assistant Professor

**Shri N.L. Srinivas**, Sr. System Analyst

Md. Arif Sadiq, Programmer

Shri Vishwa Bandhu, Programmer

#### **UN ORGANIZATION / EXTERNAL**

Dr. Rudra Sahoo, Education Specialist, UNICEF

#### **STATE FUNCTIONARIES**

State Directorate of Education, SCERTs, SIEs, DIETs, Schools



#### **Examinations**

An examination is a formal test of an individual student's knowledge or proficiency in a subject on the curriculum. The results of examinations apply to individual students, enabling them to progress through school or apply for further education or employment. Taken together, examination results provide an overall snapshot of students' performance at the end of a year of a course of learning at school. Examination results do not indicate the reasons behind high or low achievement of students.

## **Achievement Surveys**

Achievement Surveys provide a measure of learning across a representative sample of students. They allow classification of students at a specific grade level by their ability (what students know and can do) in different subjects on the curriculum. National Achievement Surveys provide a "Health Check" to the education system by analyzing achievement based on a range of background factors (School, home, teachers). They potentially enable policy makers and practitioners to address the challenges to enhance student learning.