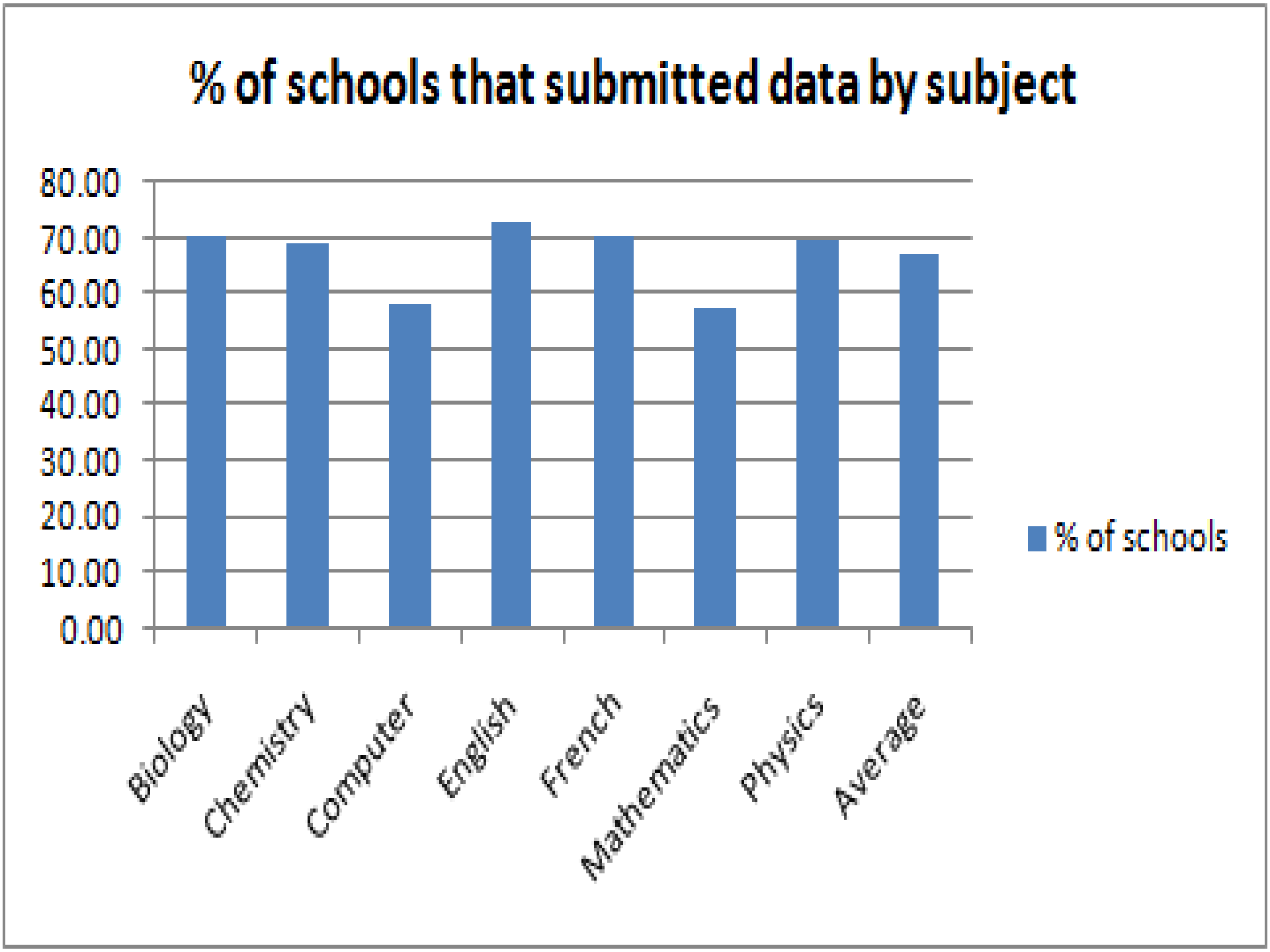
ANALYSIS OF STUDENTS' PERFORMANCE AT FORM III NATIONAL ASSESSMENT 2011

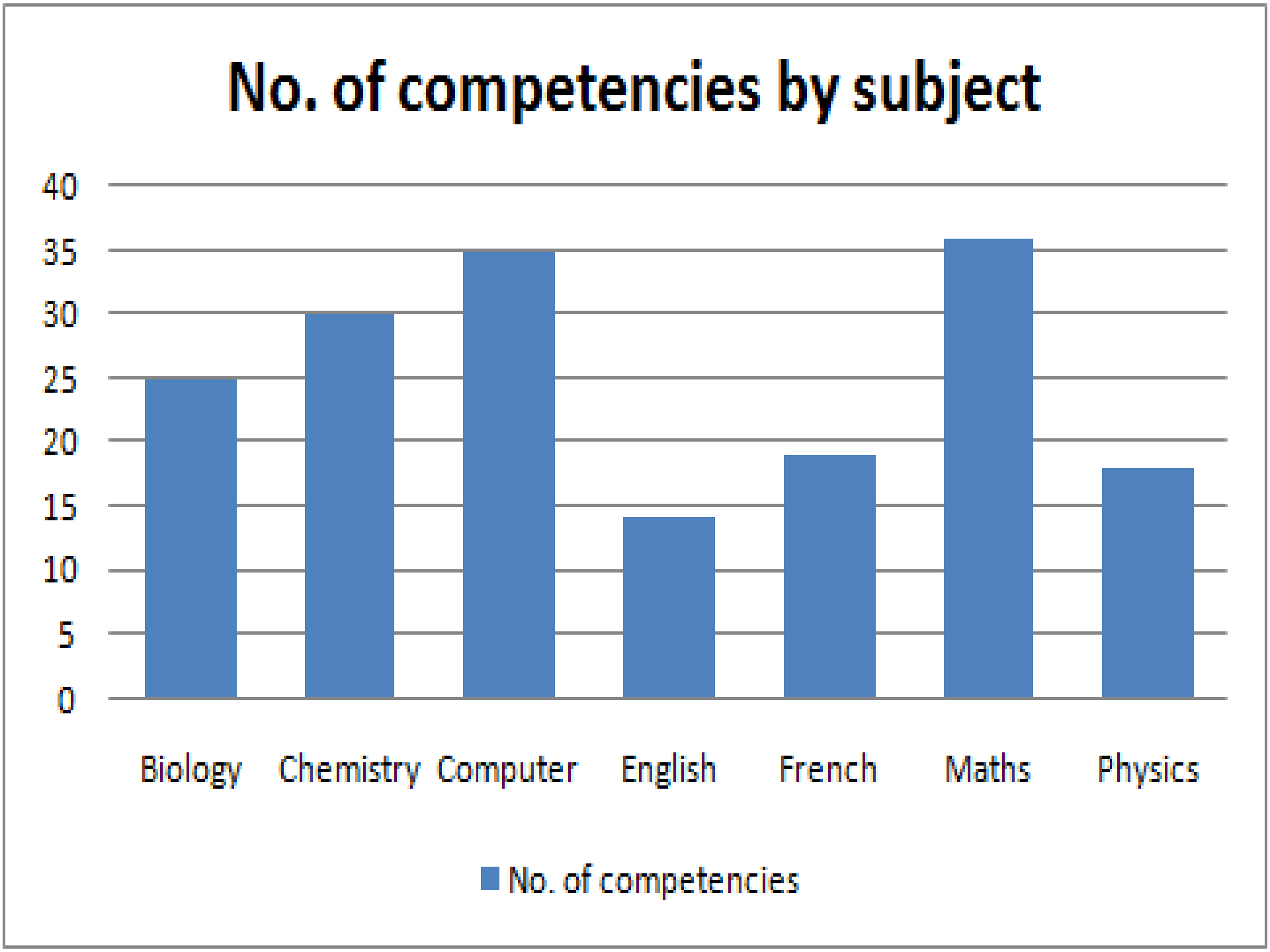

% of schools that submitted data by subject
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Biology
Chemistry
Computer
English
French
Mathematics
Physics
Average
% of schools

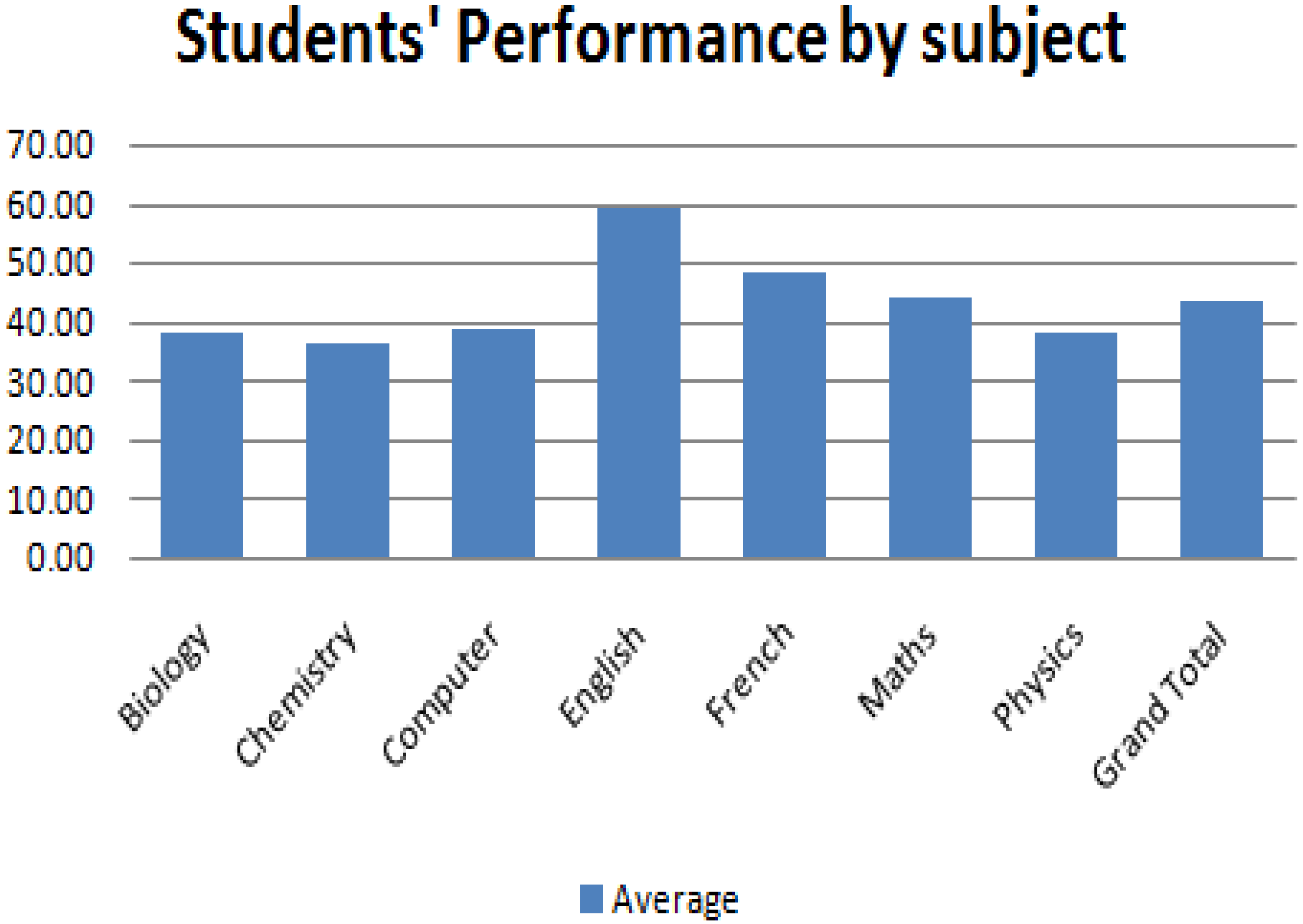
Objectives

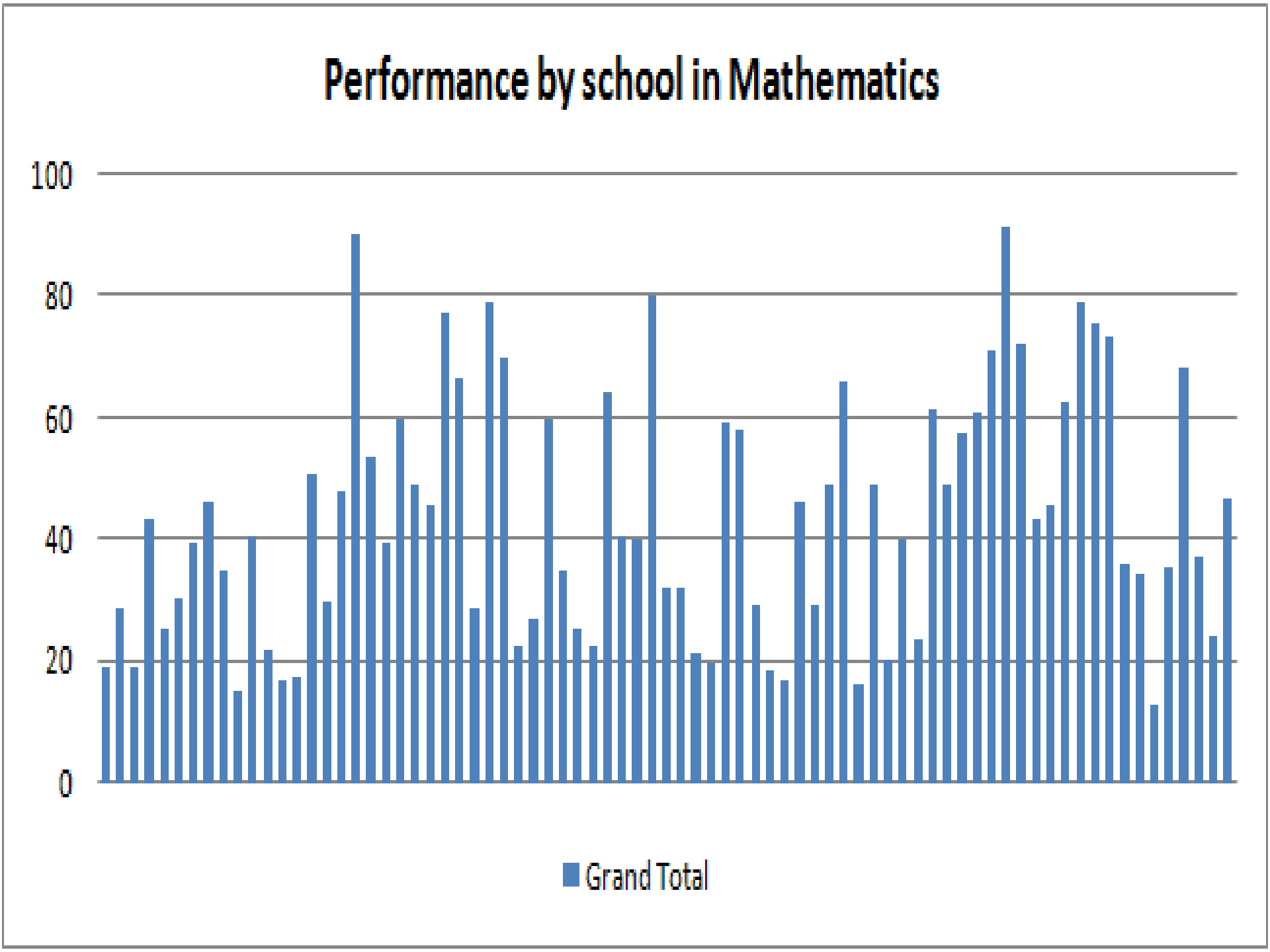
- To evaluate the level of competencies acquired by the students
- To identify the academic strengths and weaknesses and take corrective measures where needed

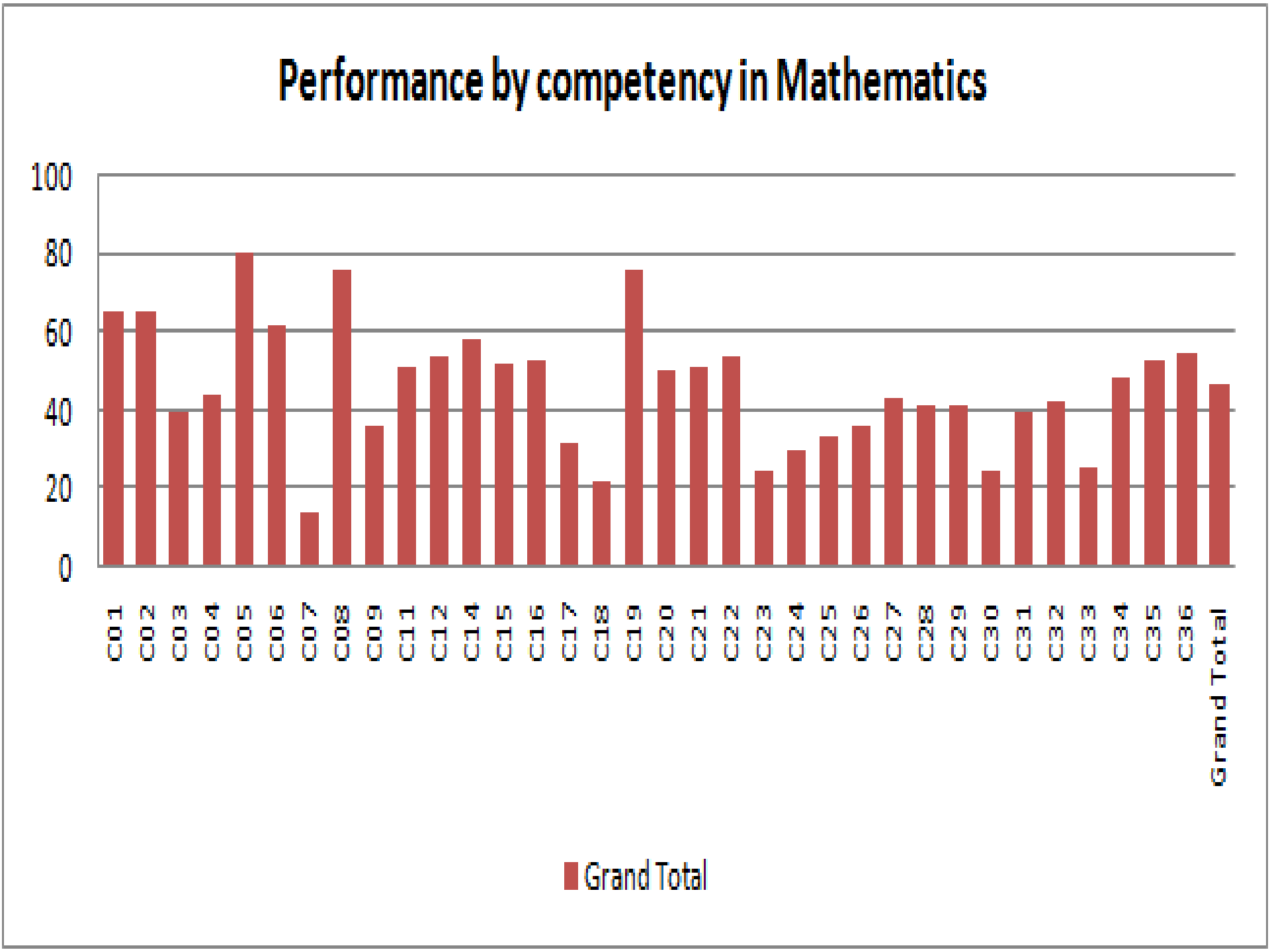
Competencies in Mathematics

SN	Topic	Competency	Code
1	**Number**	Use natural Numbers, integers (positive, negative and zero), prime numbers, common factors and common multiples, rational and irrational numbers, real numbers	C 01
		Continue given number sequences, recognise patterns within and across different sequences and generalise to simple algebraic statements	C 02
2	**Squares, Square Roots, Cubes and Cube Roots**	Calculate squares, square roots, cubes and cube roots of numbers	C 03
3	**Vulgar and Decimal Fractions and Percentages**	Use the language and notation of simple vulgar and decimal fractions and percentages in appropriate contexts	C 04


No. of competencies by subject
40
35
30
25
20
15
10
5
0
Biology
Chemistry
Computer
English
French
Maths
Physics
No. of competencies


Students' Performance by subject
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Biology
Chemistry
Computer
English
French
Maths
Physics
Grand Total
Average

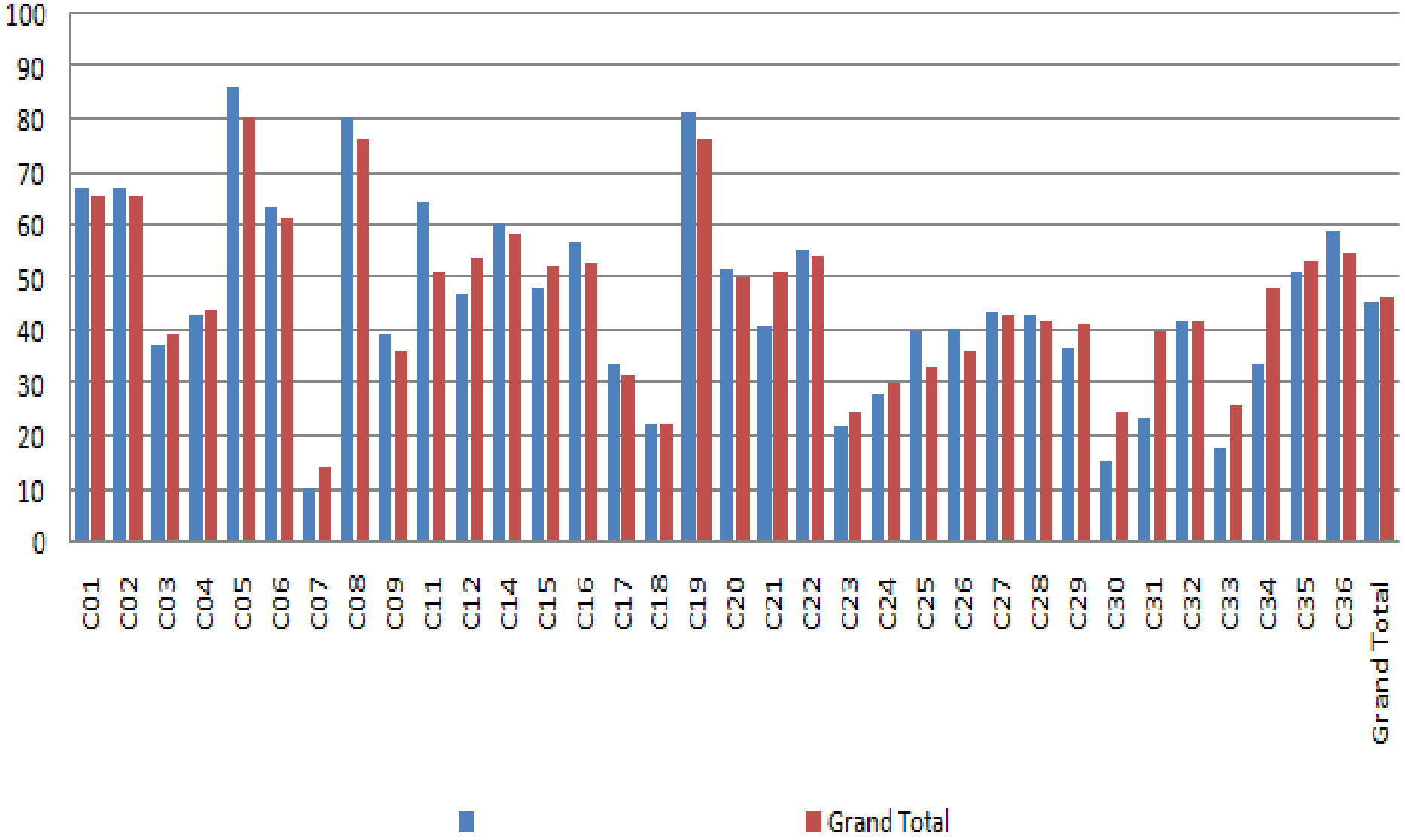

Performance by school in Mathematics
100
80
60
40
20
0
Grand Total


Performance by competency in Mathematics
100
80
60
40
20
0
C01
C02
C03
C04
C05
C06
C07
C08
C09
C11
C12
C14
C15
C16
C17
C18
C19
C20
C21
C22
C23
C24
C25
C26
C27
C28
C29
C30
C31
C32
C33
C34
C35
C36
Grand Total
Grand Total

Competency with highest and lowest % attainment at National level - Mathematics

SN	Topics	Competency	Code	Remarks
1	**The Four Operations**	Use the four operations for calculations with whole numbers, decimal fractions and vulgar (and mixed) fraction, including correct ordering of operations and use of brackets	C 05	Competency with **highest** % attainment
2	**Ratio, Proportion, Rate**	Demonstrate an understanding of the elementary ideas and notation of ratio, direct and inverse proportion and common measures of rate	C 07	Competency with **lowest** % attainment

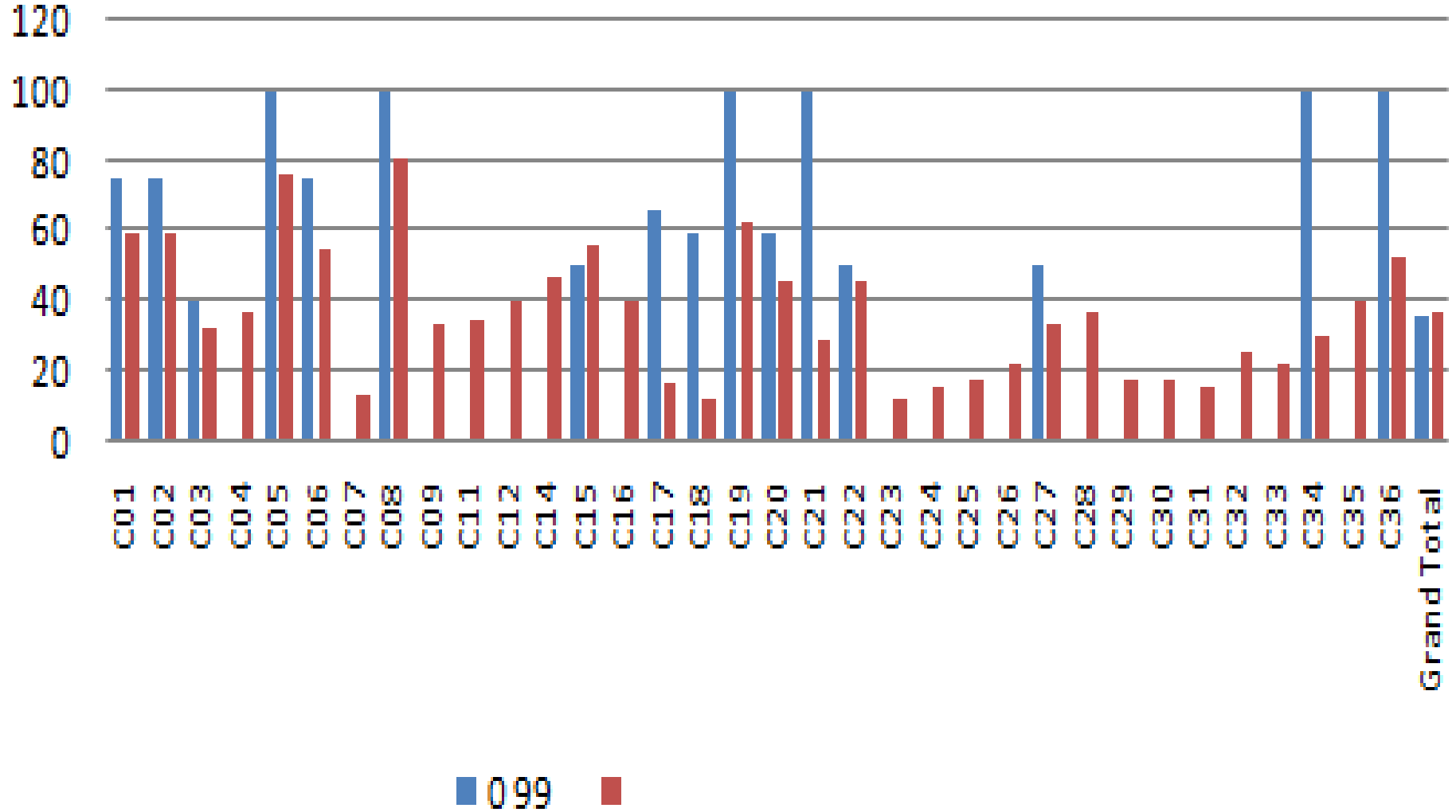
School performance by competency as compared to national average in Mathematics



Largest difference in % attainment of school as compared to National average- Mathematics

SN	Topics	Competency	Code	Remarks
1	**Coordinate Geometry**	Interpret and obtain the equation of a straight line graph in the form $y = mx + c$	C 11	**Higher** than the national average
2	**Statistics**	Construct and use bar charts, pie charts, pictograms, simple frequency distributions;	C 31	**Lower** than the national average

Student performance by competency as compared to school average in Mathematics

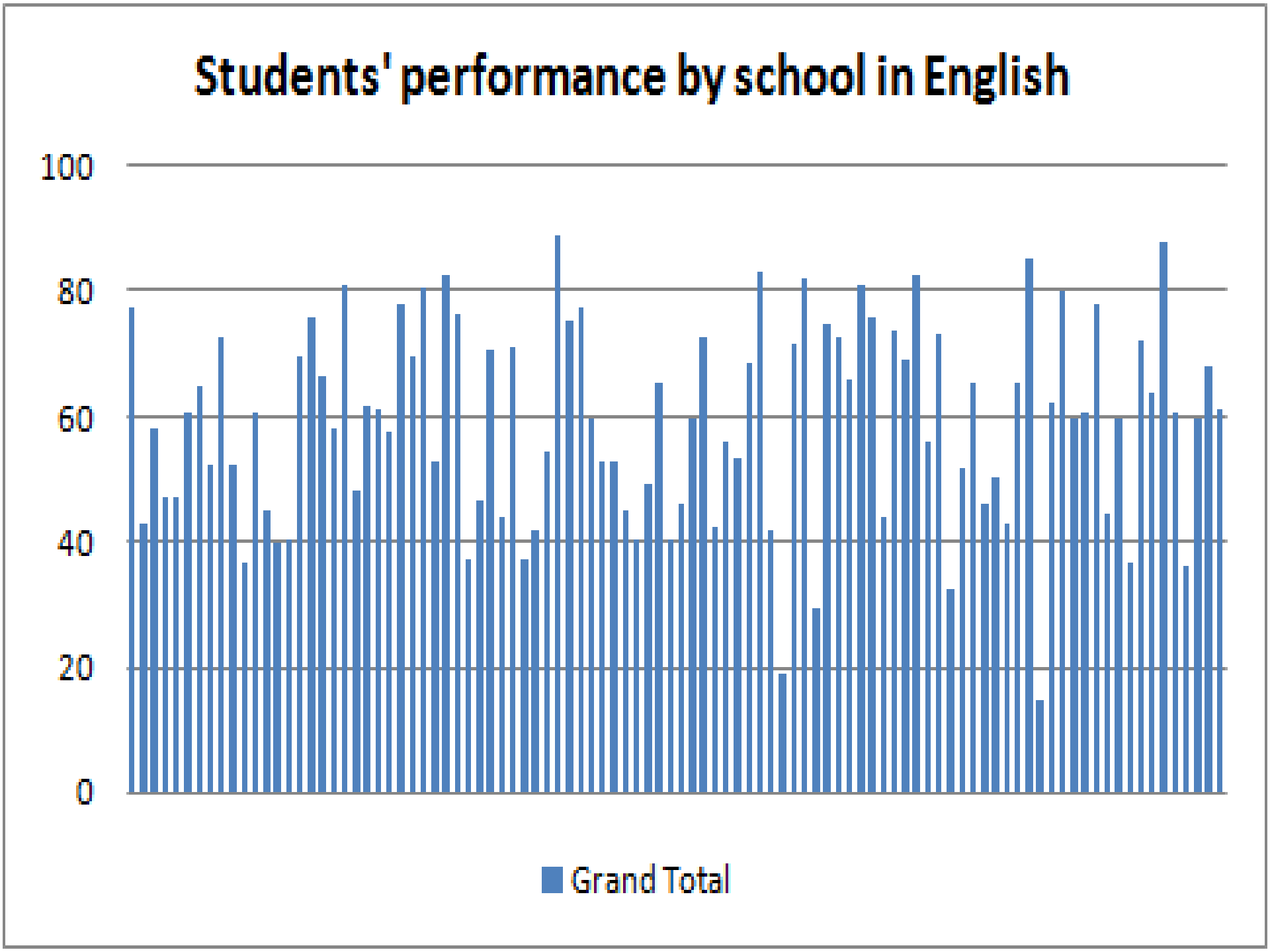


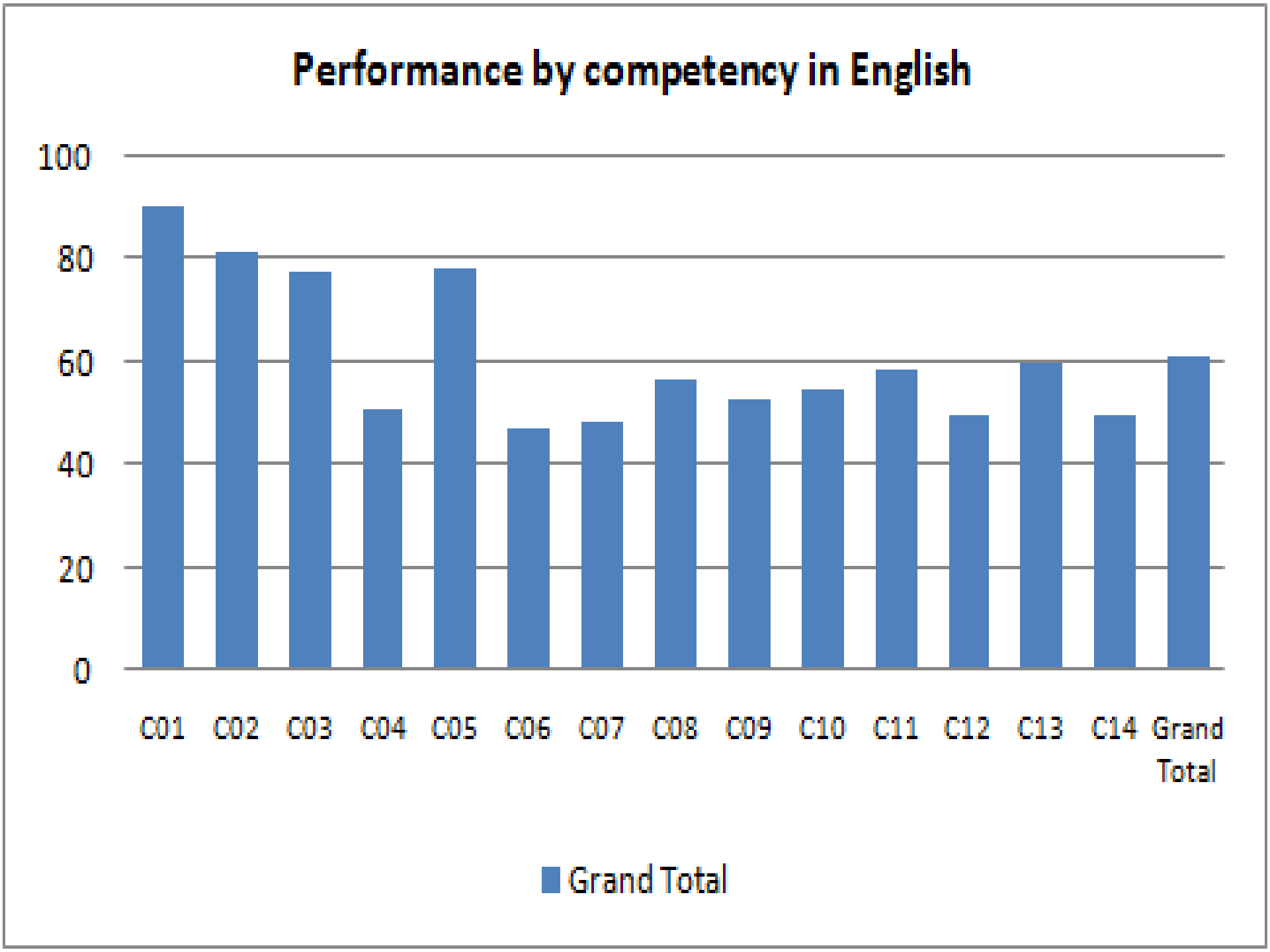
Report to Parents on performance of student- Mathematics

SN	Topic	Competency	Code	% attainment
1	**Measures**	Use current units of mass, length, area, volume and capacity in practical situations and express quantities in terms of larger or smaller units	C 08	100
2	**Squares, Square Roots, Cubes and Cube Roots**	Calculate squares, square roots, cubes and cube roots of numbers	C 03	40
3	**Angles**	Calculate unknown angles and give simple explanations using the following geometrical properties: angle properties of polygons including angle sum.	C 27	50

Competencies in English

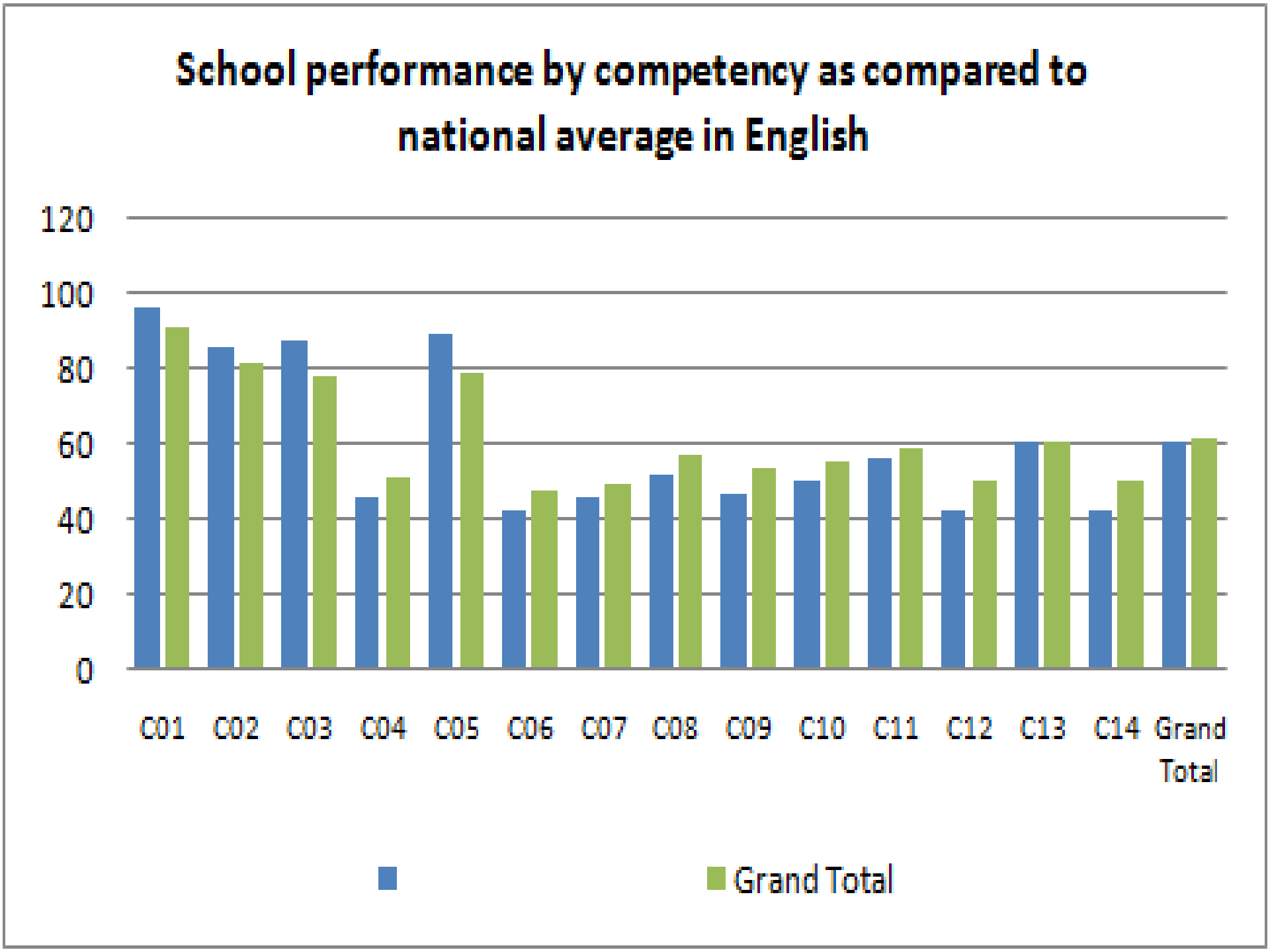
SN	Topics	Competency	Code
1	**Reading**	Respond to texts and organise information read	C 01
		Understand explicit meaning	C 02
		Identify central themes and ideas	C 03
		Draw inferences	C 04
		Identify characters and follow the sequence of events	C 05


Students' performance by school in English
100
80
60
40
20
0
Grand Total


Performance by competency in English
100
80
60
40
20
0
C01
C02
C03
C04
C05
C06
C07
C08
C09
C10
C11
C12
C13
C14
Grand Total
Grand Total

Competency with highest and lowest % attainment at National level- English

SN	Topics	Competency	Code	Remarks
1	**Reading**	Respond to texts and organise information read	C 01	Competency with **highest** % attainment
		Provide a personal response to the text	C 06	Competency with **lowest** % attainment

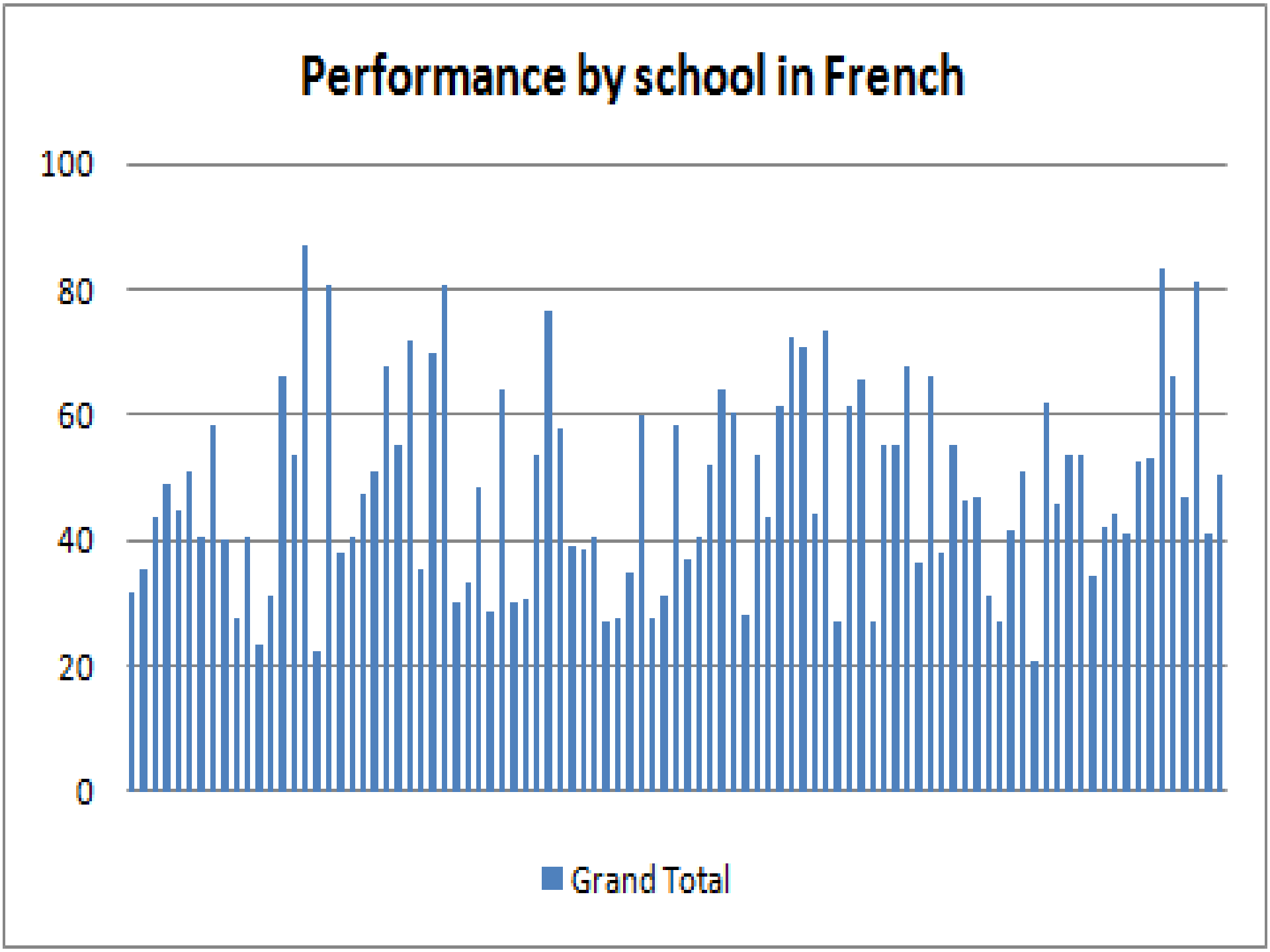

School performance by competency as compared to national average in English
120
100
80
60
40
20
0
C01
C02
C03
C04
C05
C06
C07
C08
C09
C10
C11
C12
C13
C14
Grand Total
Grand Total

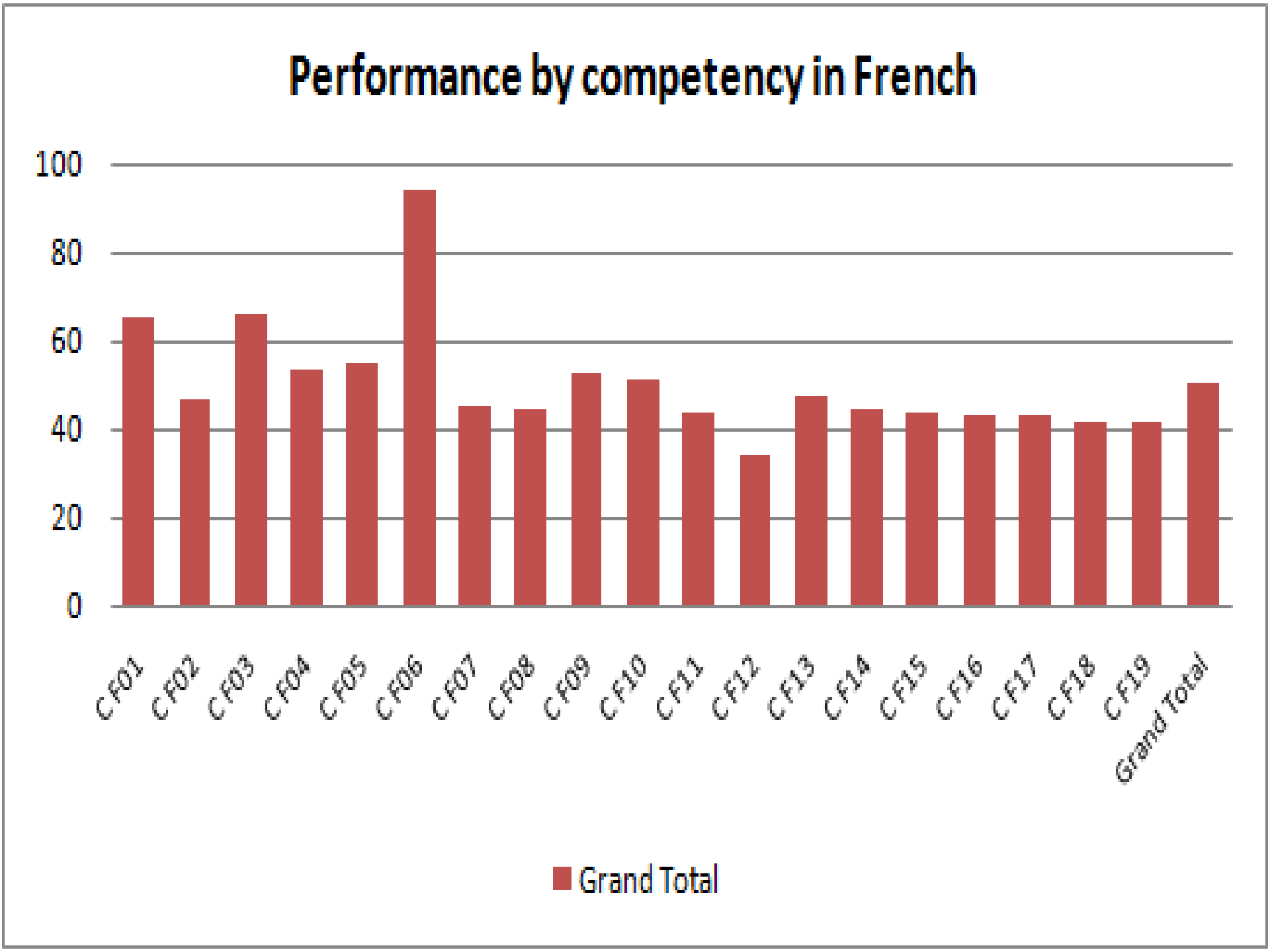
Largest difference in % attainment of school as compared to National average - English

SN	Topics	Competency	Code	Remarks
1	**Reading**	Identify characters and follow the sequence of events	C 05	**Higher** than the National average
2	**Writing**	Use appropriate conventions of writing (e.g. paragraphing, proper layout for writing letters, etc)	C 12	**Lower** than the National average
		Display originality and creativity.	C 14	

Competencies in French

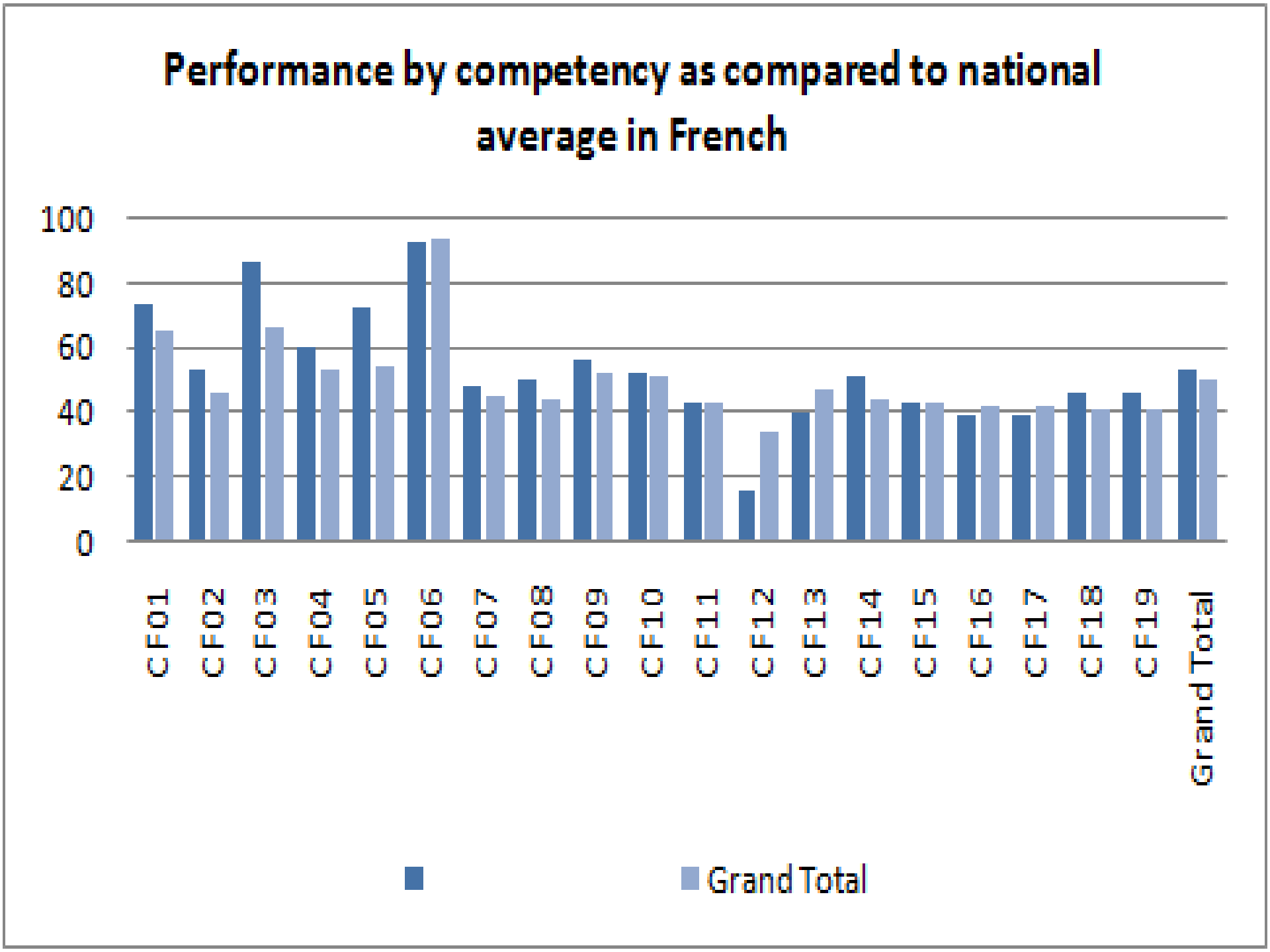
SN	Topic	Competency	Code
1	**Lecture/ Compréhension**	Reconnaître, lire et comprendre des textes de la vie de tous les jours (mode d'emploi, dépliant, programme de télé, …)	C F01
		Obtenir des informations de différentes sources (dictionnaire, encyclopédie, média, …), les organiser et s'en servir	C F02
		Lire une variété de textes, de différentes longueurs et sur des sujets différents et	C F03
		retrouver des informations spécifiques	C F04


Performance by school in French
100
80
60
40
20
0
Grand Total


Performance by competency in French
100
80
60
40
20
0
CF01
CF02
CF03
CF04
CF05
CF06
CF07
CF08
CF09
CF10
CF11
CF12
CF13
CF14
CF15
CF16
CF17
CF18
CF19
Grand Total
Grand Total

Competency with highest and lowest % attainment at National level-French

SN	Topic	Competency	Code	Remarks
1	**Lecture/ Compréhension**	suivre l'ordre logique et chronologique	CF06	Competency with **highest** % attainment
2	**Production Écrite**	Avoir une bonne orthographe	CF12	Competency with **lowest** % attainment

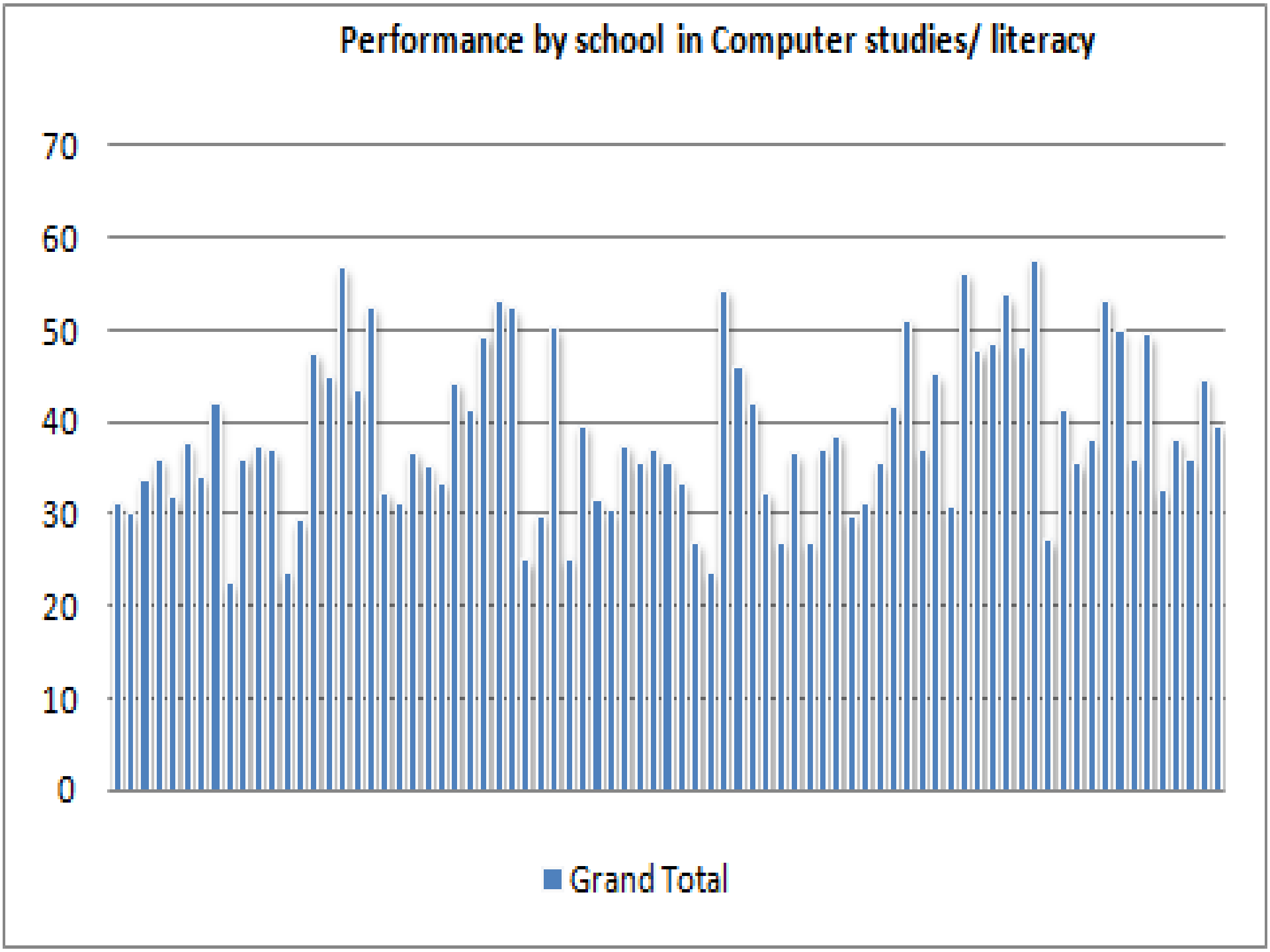

Performance by competency as compared to national average in French
100
80
60
40
20
0
CF01
CF02
CF03
CF04
CF05
CF06
CF07
CF08
CF09
CF10
CF11
CF12
CF13
CF14
CF15
CF16
CF17
CF18
CF19
Grand Total
Grand Total

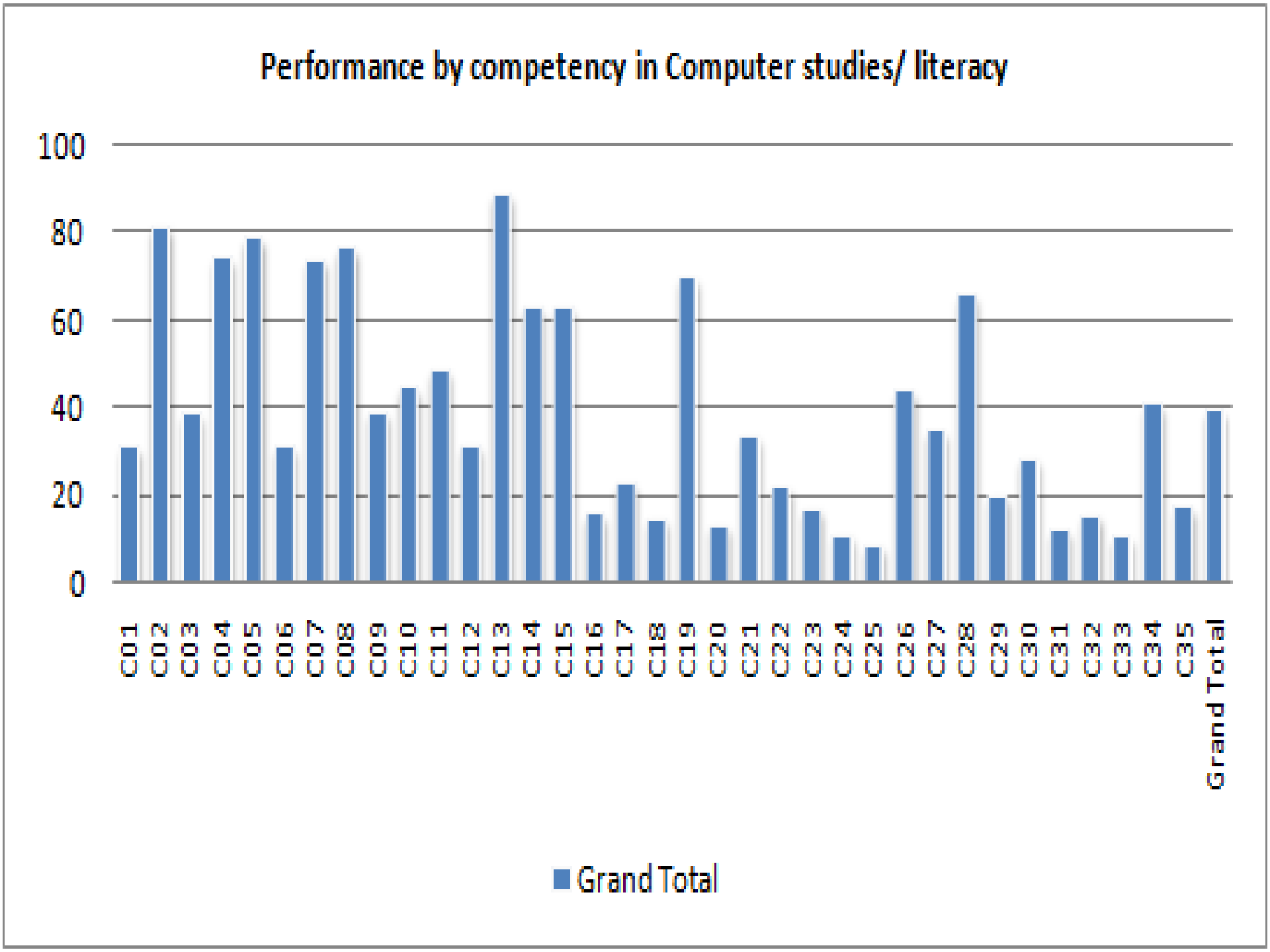
Largest difference in % attainment of school as compared to National average -French

SN	Topic	Competency	Code	Remarks
1	**Lecture/ Compréhension**	Lire une variété de textes, de différentes longueurs et sur des sujets différents et	CF03	**Higher** than the National average
		identifier des personnages	CF05	**Higher** than the National average
2	**Production Écrite**	Avoir une bonne orthographe	CF12	**Lower** than the National average

Competencies in Computer Studies/ Literacy

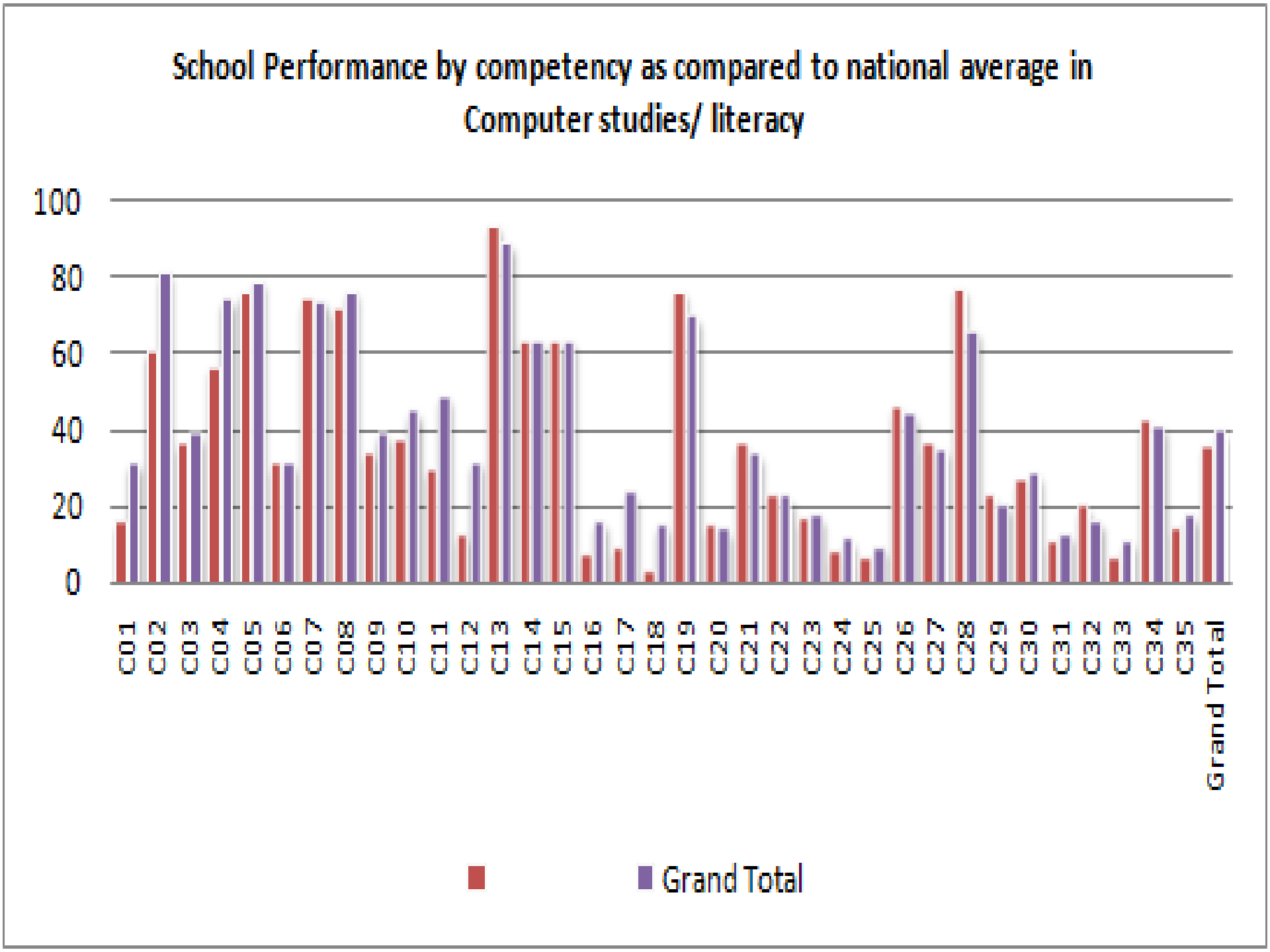
SN	Topic	Competency	Code
	Computer System	Identify the main components of a general-purpose computer: central processing unit, main/internal memory (including ROM and RAM), input devices, output devices and secondary/backing storage;	C 0 1
		Define the terms bit, byte, kilobyte, megabyte and gigabyte;	C 02
		Identify and describe the purpose of the following input devices: keyboard, mouse, joystick, microphone, bar code reader, scanner;	C 0 3
		Identify and describe the purpose of the following output devices: monitor, printer (dot matrix, inkjet and laser), graph plotter and speakers;	C 0 4


Performance by school in Computer studies/ literacy
70
60
50
40
30
20
10
0
Grand Total


Performance by competency in Computer studies/ literacy
100
80
60
40
20
0
C01
C02
C03
C04
C05
C06
C07
C08
C09
C10
C11
C12
C13
C14
C15
C16
C17
C18
C19
C20
C21
C22
C23
C24
C25
C26
C27
C28
C29
C30
C31
C32
C33
C34
C35
Grand Total
Grand Total

Competency with highest and lowest % attainment at National level-Computer studies / literacy

SN	Topics	Competency	Code	Remarks
1	**Networking and Internet Applications**	Define the terms: internet, WWW, e-mail;	C 13	Competency with **highest** % attainment
2	**Application Packages: Database**	Understand the structure of a database (field name, field type and field width).	C 25	Competency with **lowest** % attainment

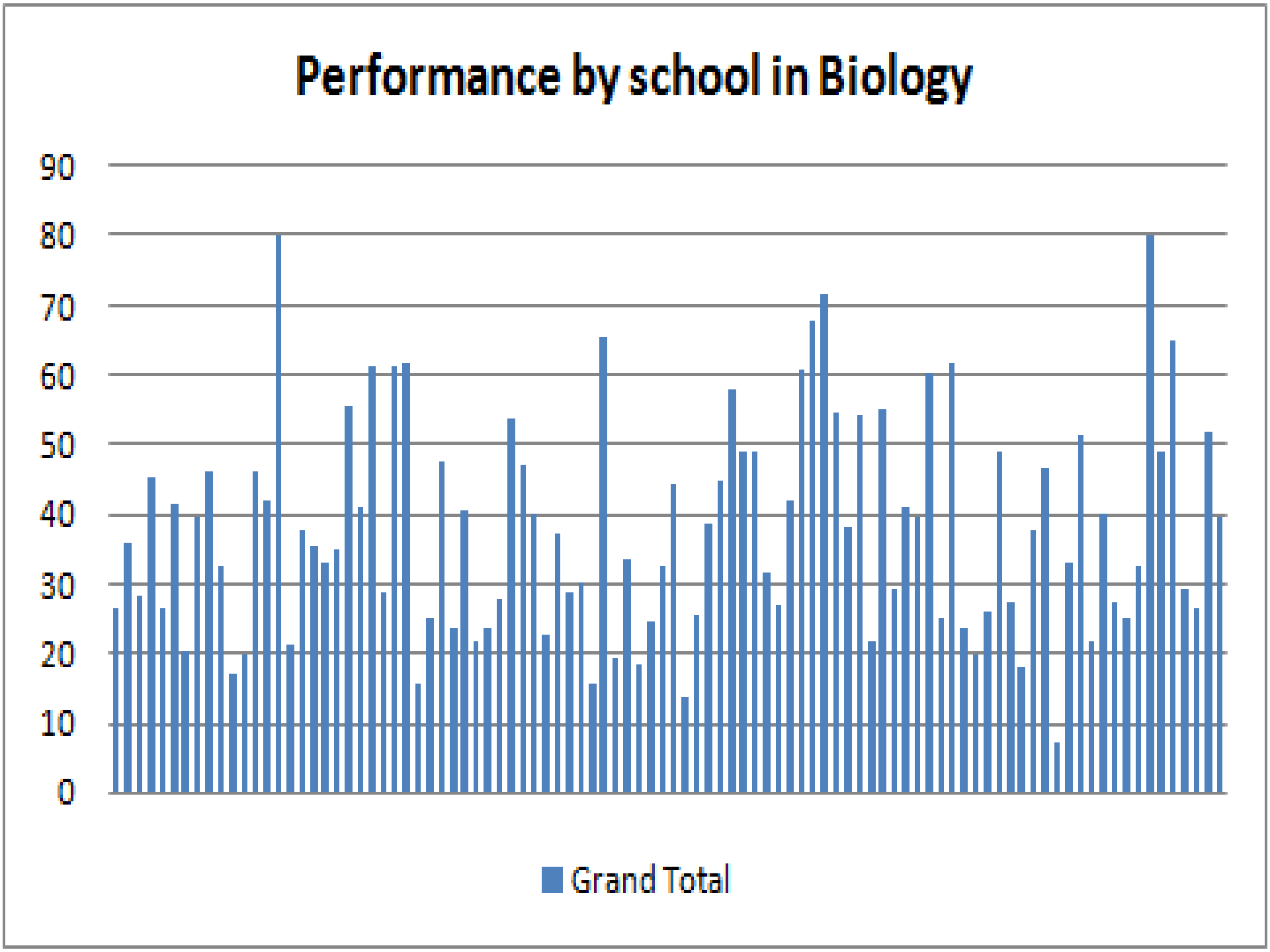

School Performance by competency as compared to national average in Computer studies/ literacy
100
80
60
40
20
0
C01
C02
C03
C04
C05
C06
C07
C08
C09
C10
C11
C12
C13
C14
C15
C16
C17
C18
C19
C20
C21
C22
C23
C24
C25
C26
C27
C28
C29
C30
C31
C32
C33
C34
C35
Grand Total
Grand Total

Largest difference in % attainment of school as compared to National average –Computer Studies / Literacy

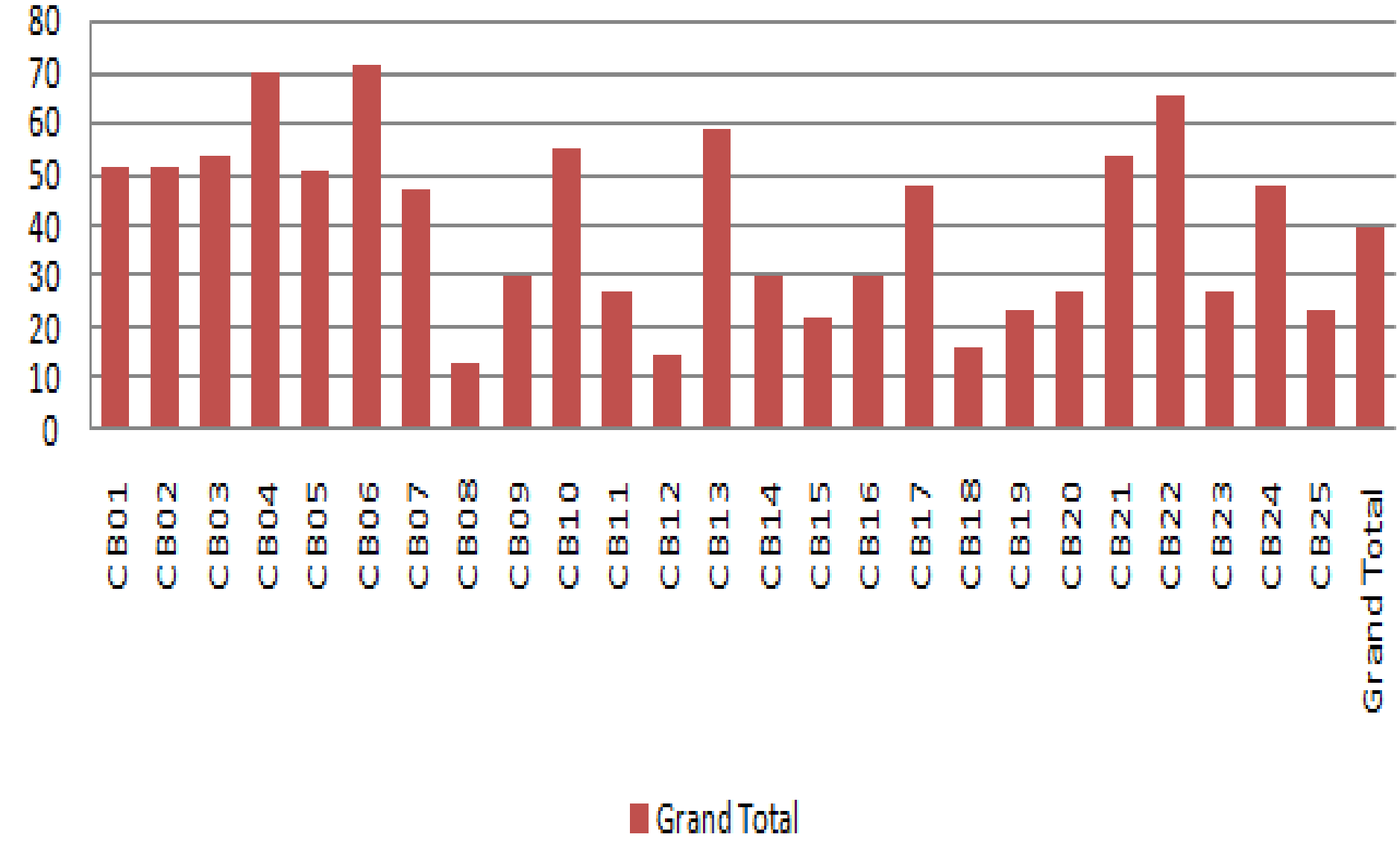
SN	Topics	Competency	Code	Remarks
1	**Alternative to Practical: Word Processing**	Insert graphics, pictures and textbox into the document body;	C 28	**Higher** than the National average
2	**Computer System**	Define the terms bit, byte, kilobyte, megabyte and gigabyte;	C 02	**Lower** than the National average

Competencies in Biology

SN	Topic	Competency	Code
1	Cells	Draw diagrams to represent observations of the plant and animal cells examined above	C B 01
		Identify, from diagrams, the cell membrane, nucleus and cytoplasm in an animal cell	C B 02
		Compare the visible differences in structure of the animal and the plant cells examined	C B 03
		State, in simple terms, the relationship between cell function and cell structure for the following: absorption - root hair cells	C B 04

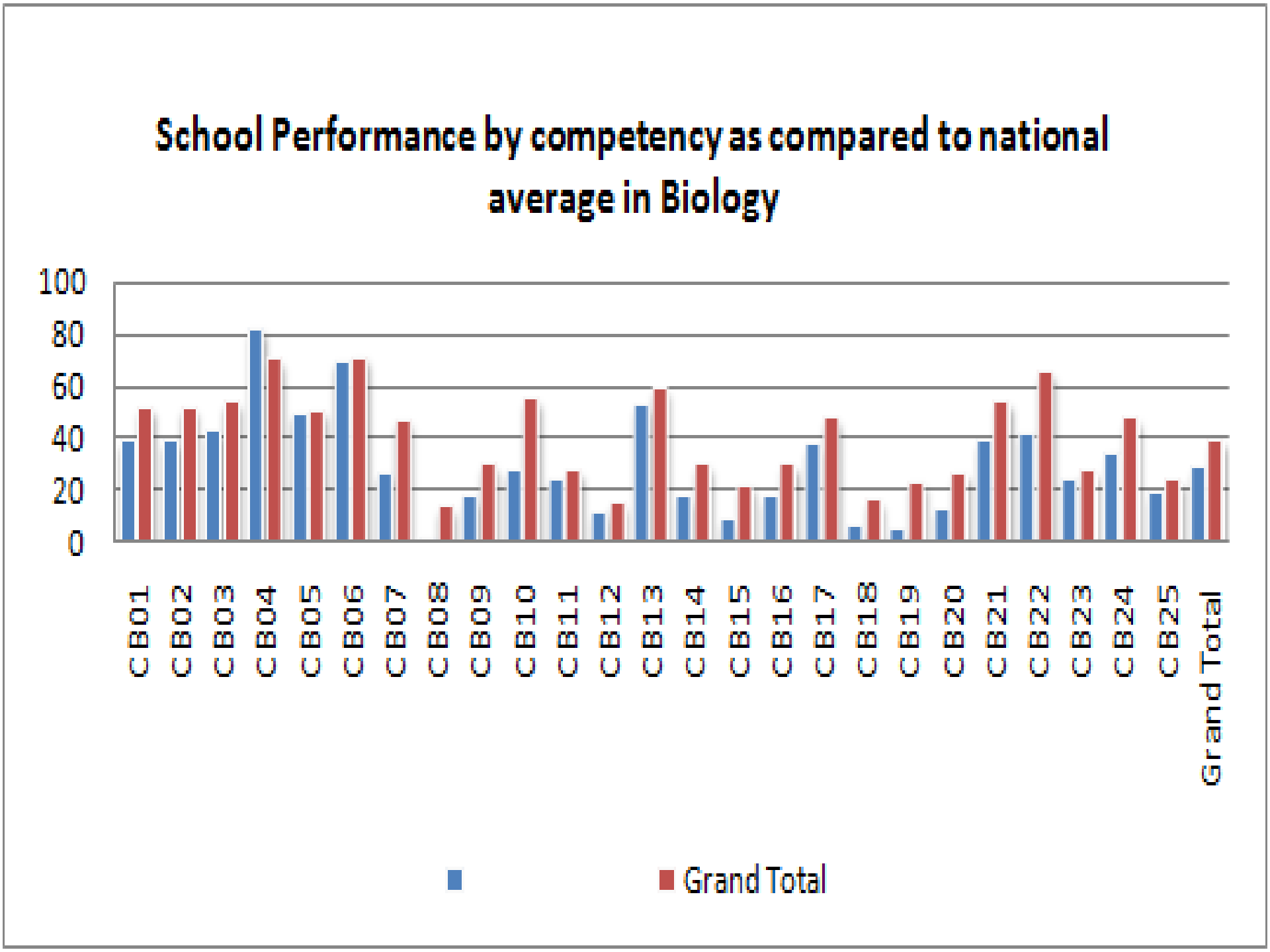

Performance by school in Biology
90
80
70
60
50
40
30
20
10
0
Grand Total

Performance by competency in Biology



Competency with highest and lowest % attainment at National level-Biology

SN	Topics	Competency	Code	Remarks
2	Food and Digestion	Describe tests for: starch (iodine in potassium iodide solution)	C B 06	Competency with **highest** % attainment
		Give a brief definition of peristalsis	C B 08	Competency with **lowest** % attainment

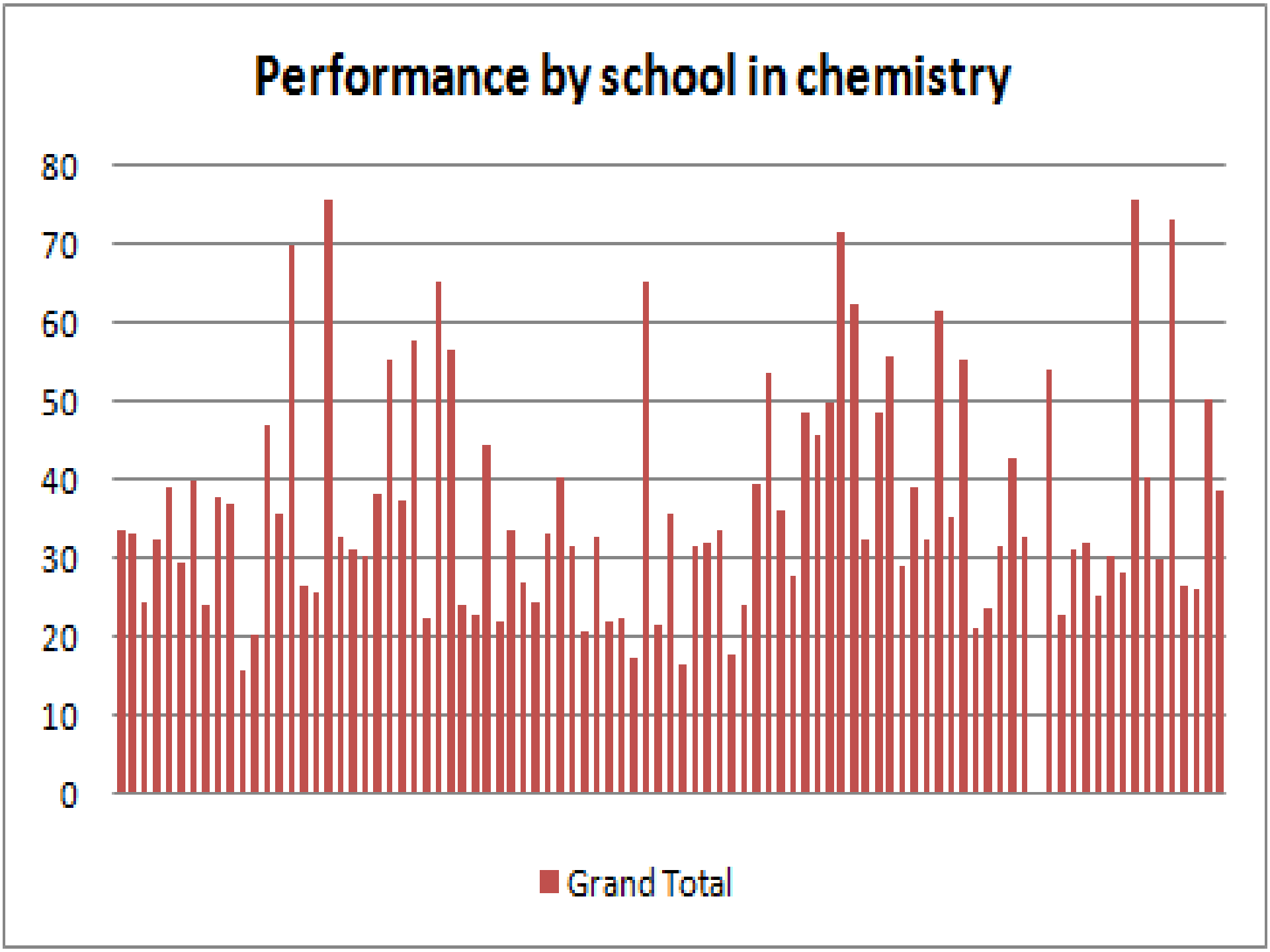

School Performance by competency as compared to national average in Biology
100
80
60
40
20
0
CB01
CB02
CB03
CB04
CB05
CB06
CB07
CB08
CB09
CB10
CB11
CB12
CB13
CB14
CB15
CB16
CB17
CB18
CB19
CB20
CB21
CB22
CB23
CB24
CB25
Grand Total
Grand Total

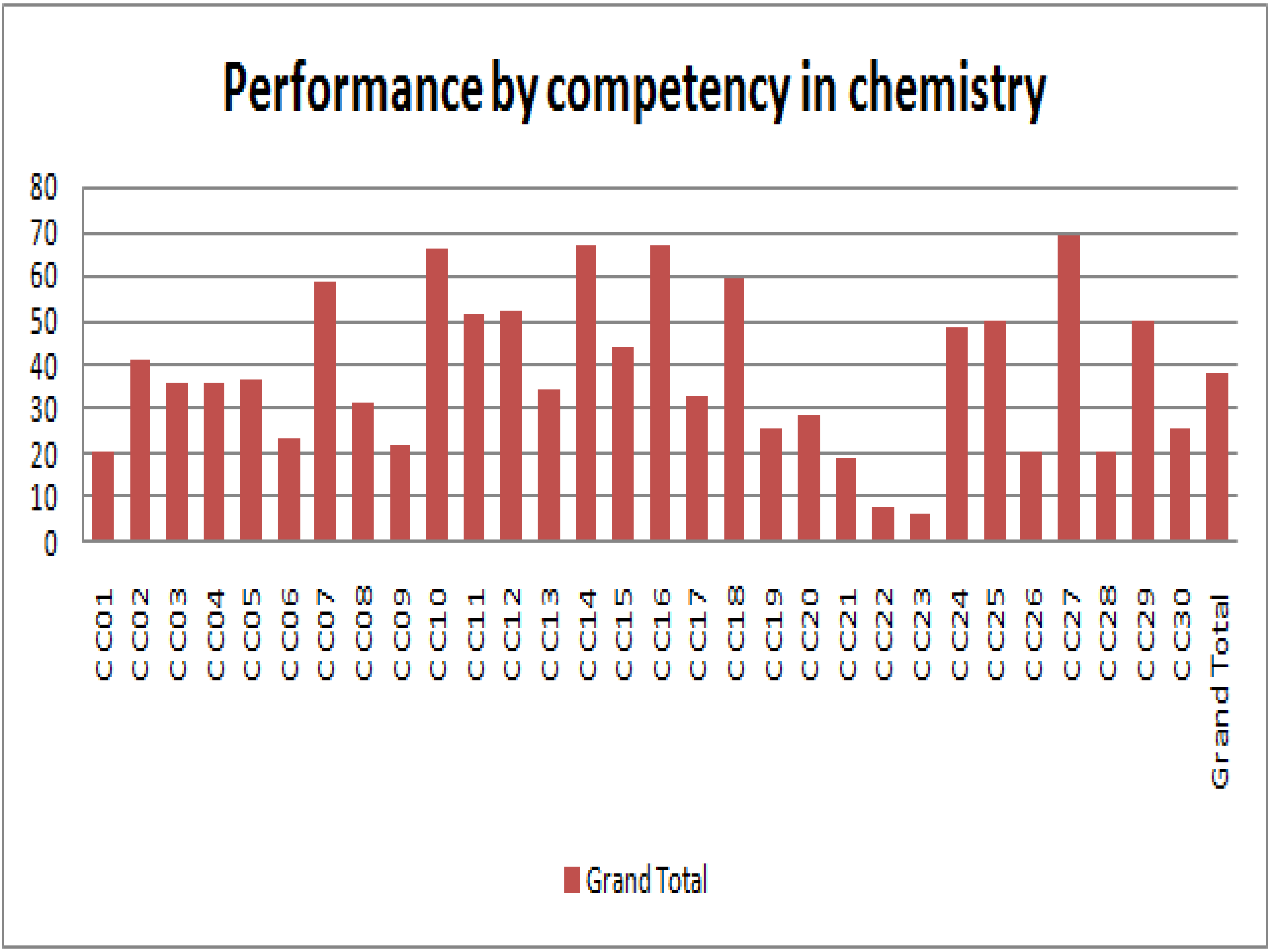
Largest difference in % attainment of school as compared to National average -Biology

SN	Topics	Competency	Code	Remarks
1	Cells	State, in simple terms, the relationship between cell function and cell structure for the following: absorption - root hair cells	C B 04	**Higher** than the National average
2	Our Environment	Define the following terms and establish the relationship of each in the ecosystem: producer, consumer, herbivore, carnivore, decomposer, food chain and food web	C B 22	**Lower** than the National average

Competencies in Chemistry

SN	Topic	Competency	Code
1	Symbols, Formulae and Equations	Write word equations for different chemical reactions	CC 01
		Use formulae and valencies to deduce formulae of compounds with radicals	C C02
		Count the number of atom in the formula	C C03
		Convert word equations to balanced equations	C C04


Performance by school in chemistry
80
70
60
50
40
30
20
10
0
Grand Total


Performance by competency in chemistry
80
70
60
50
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30
20
10
0
CC01
CC02
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CC04
CC05
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CC07
CC08
CC09
CC10
CC11
CC12
CC13
CC14
CC15
CC16
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CC22
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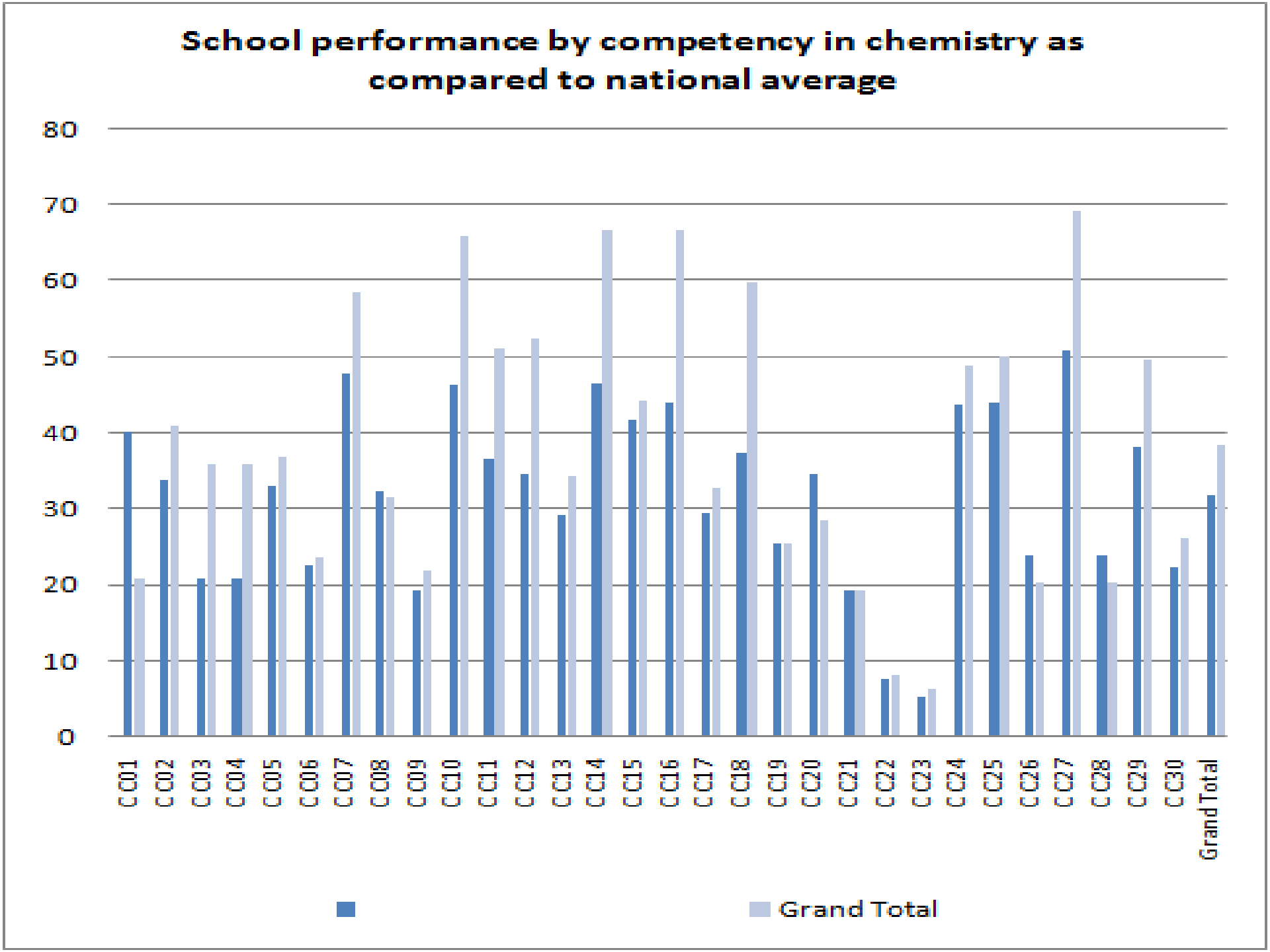
CC24
CC25
CC26
CC27
CC28
CC29
CC30
Grand Total
Grand Total

Competency with highest and lowest % attainment at National level-Chemistry

SN	Topics	Competency	Code	Remarks
1	Air and Water	List common air pollutants (carbon monoxide, oxides of nitrogen, sulphur dioxide)	C C27	Competency with **highest** % attainment
2	Salts	State the uses of salt for example: Calcium sulphate in plaster of Paris	C C23	Competency with **lowest** % attainment

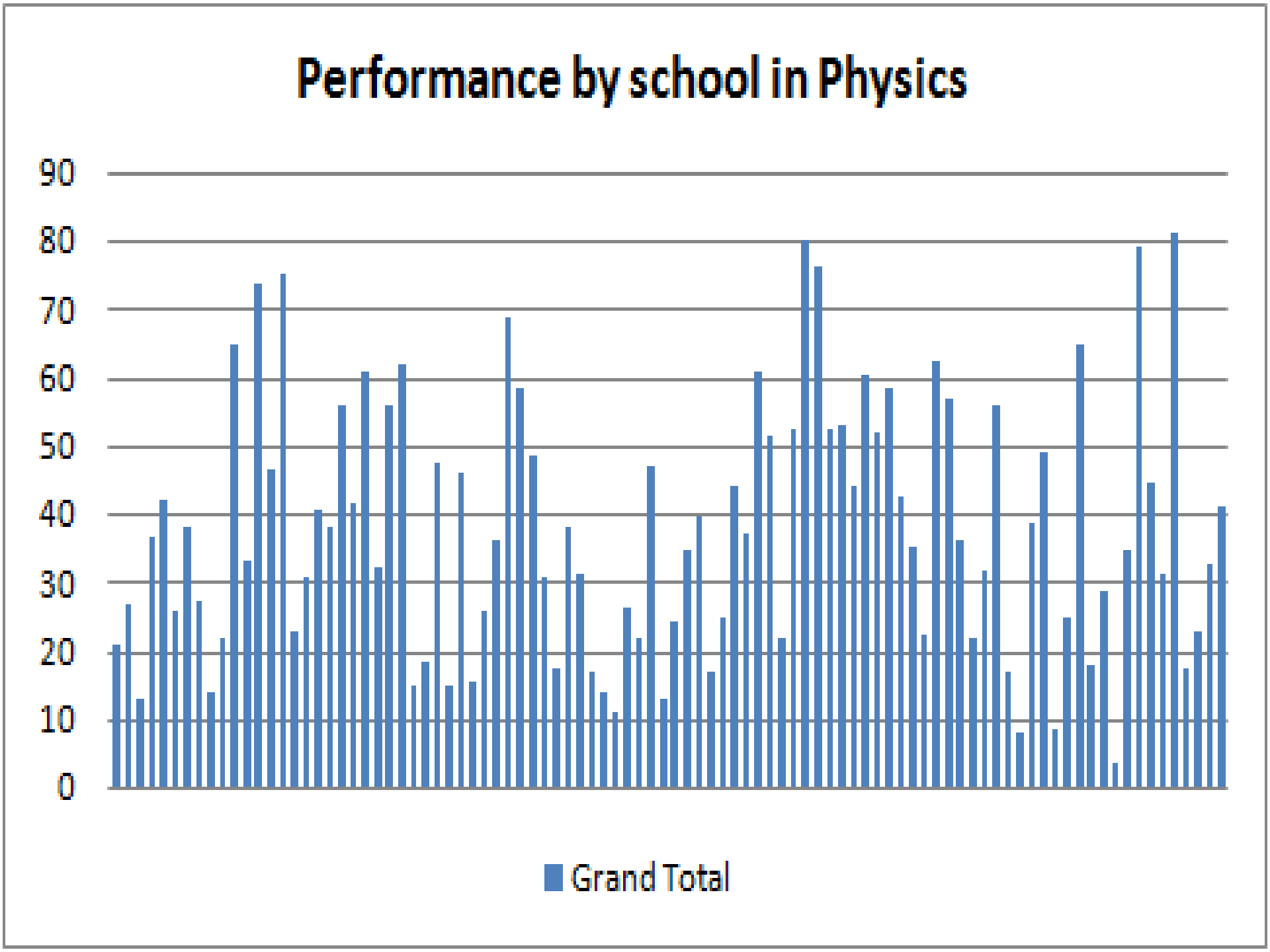

School performance by competency in chemistry as compared to national average
80
70
60
50
40
30
20
10
0
C01
C02
C03
C04
C05
C06
C07
C08
C09
C10
C11
C12
C13
C14
C15
C16
C17
C18
C19
C20
C21
C22
C23
C24
C25
C26
C27
C28
C29
C30
Grand Total
Grand Total

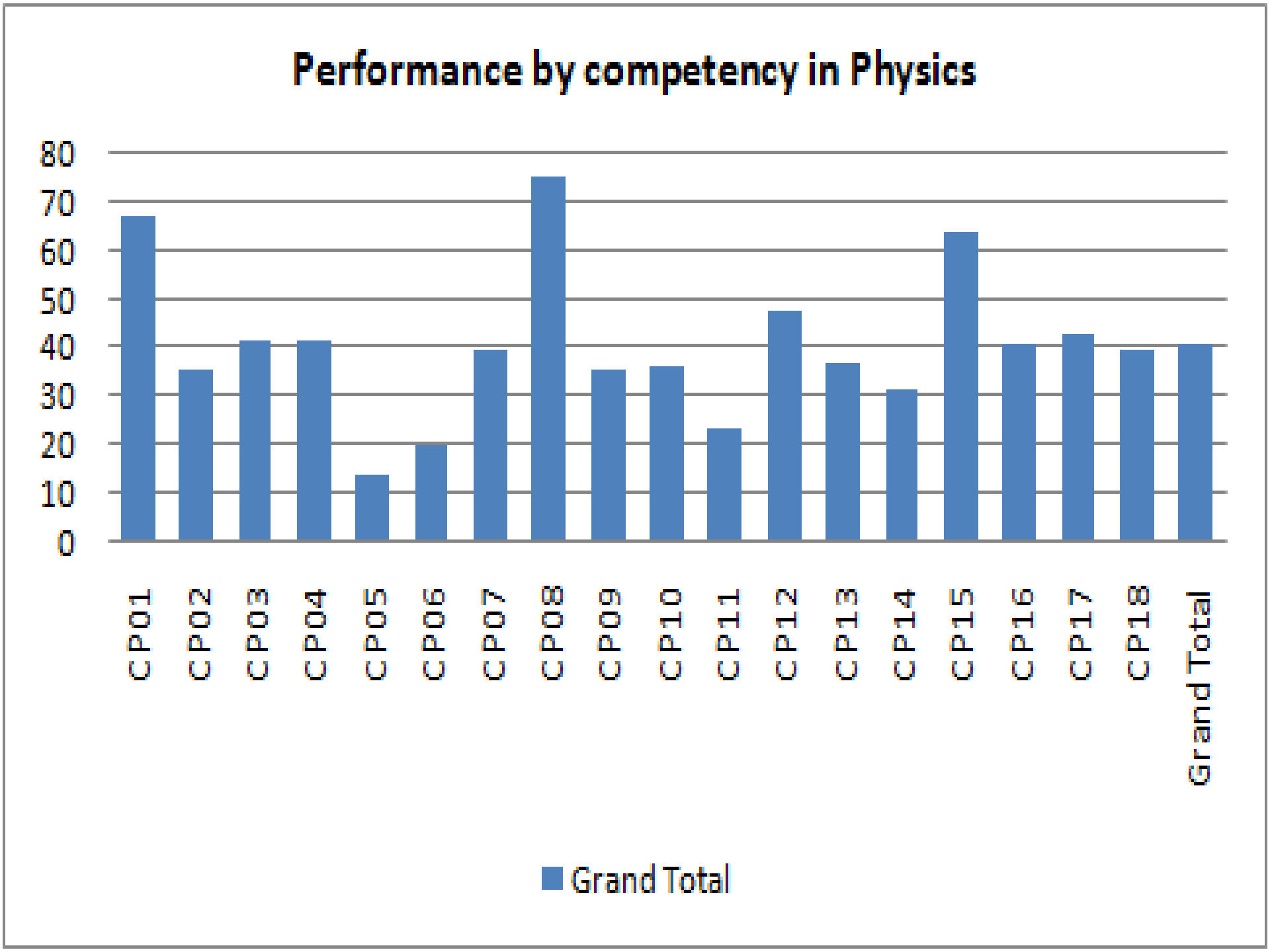
Largest difference in % attainment of school as compared to National average -Chemistry

SN	Topics	Competency	Code	Remarks
1	Symbols, Formulae and Equations	Write word equations for different chemical reactions	CC 01	**Higher** than the National average
2	Metals and Reactivity Series	Action of Magnesium, Zinc, Iron and Copper with dilute acids	C C16	**Lower** than the National average
3	Mixtures and their Separation	Experimental techniques: All separation techniques as specified above in the syllabus	C C18	**Lower** than the National average

Competencies in Physics

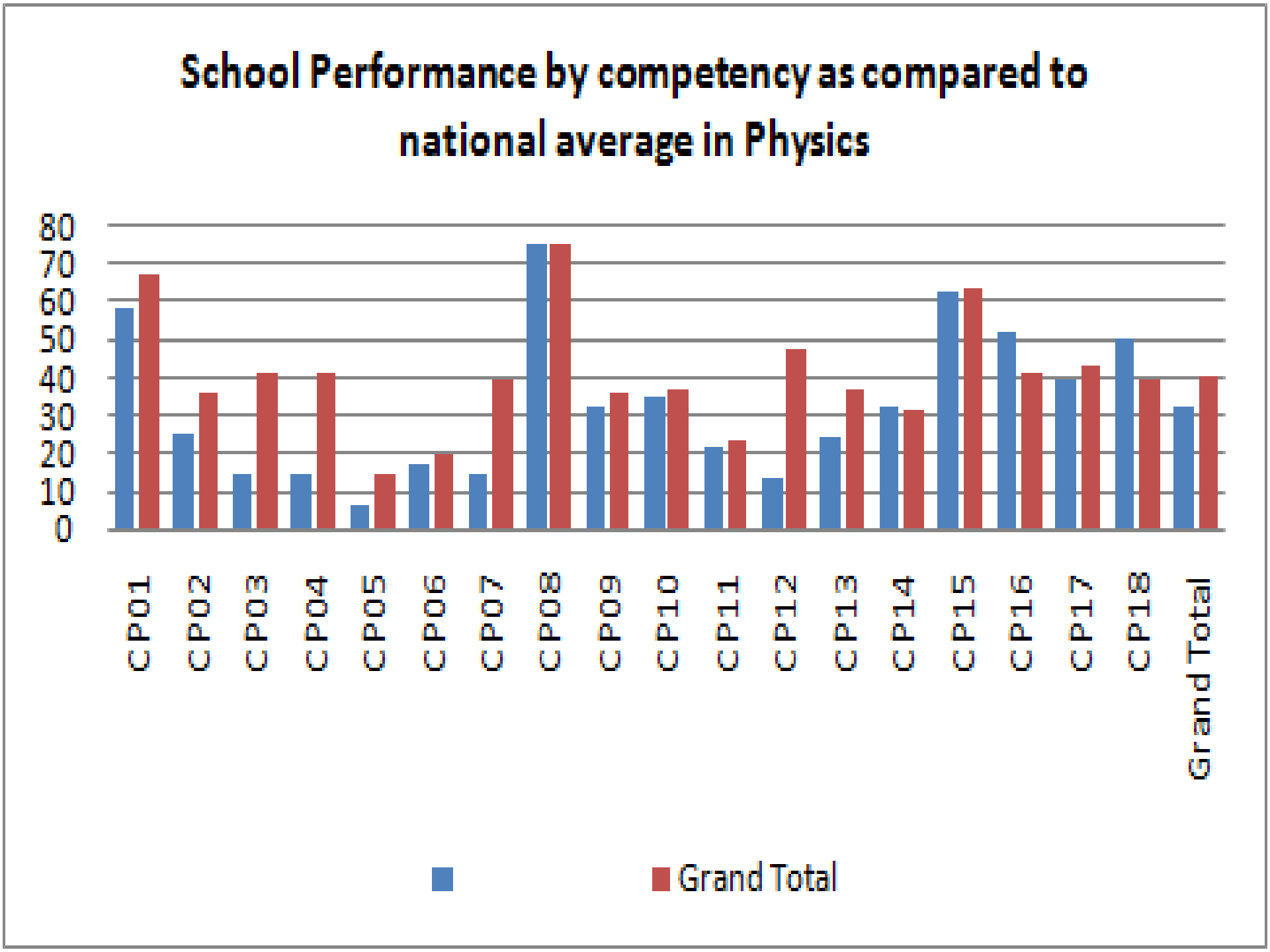
SN	Topic	Competency	Code
1	Measurements	Choose the appropriate apparatus for the measurement of length, mass, volume, time and temperature	C P 01
		Read measuring instruments (metre rule, ruler, vernier calipers, electronic balance, measuring cylinders, digital stopwatch, thermometer etc) accurately	C P 02
		Express and record measurements in their correct units	C P 03
		Enumerate a few precautions taken during measurement	C P 04


Performance by school in Physics
90
80
70
60
50
40
30
20
10
0
Grand Total


Performance by competency in Physics
80
70
60
50
40
30
20
10
0
CP01
CP02
CP03
CP04
CP05
CP06
CP07
CP08
CP09
CP10
CP11
CP12
CP13
CP14
CP15
CP16
CP17
CP18
Grand Total
Grand Total

Competency with highest and lowest % attainment at National level-Physics

SN	Topics	Competency	Code	Remarks
1	Motion	Employ defining equations of speed, velocity, and acceleration in simple problems	C P 08	Competency with **highest** % attainment
2	Measurements	Explain that pressure is caused by the action of force on an area	C P 05	Competency with **lowest** % attainment


School Performance by competency as compared to national average in Physics
80
70
60
50
40
30
20
10
0
CP01
CP02
CP03
CP04
CP05
CP06
CP07
CP08
CP09
CP10
CP11
CP12
CP13
CP14
CP15
CP16
CP17
CP18
Grand Total
Grand Total

Largest difference in % attainment of school as compared to National average -Physics

SN	Topics	Competency	Code	Remarks
1	Electricity	Set up simple circuits	C P 16	**Higher** than the National average
2	Reflection and Refraction	Describe how non-luminous objects are seen	C P 12	**Lower** than the National average