

# Further topics in primary mathematics education education essay

[Science](#), [Mathematics](#)



**ASSIGN  
BUSTER**

Children can be assessed on five facets of a subject, viz. : constructs , process , processes ( problem-solving ( 3 ) , connexions and communication/representation , ( Glanfield, Bush & A ; Stenmark, 2003 ) . With mention to the Topic 'Length ' as it is presented in Abacus Level 3 ( SDM p. 3 - 8 ) , remark about the expected appraisal undertakings presented in the Assessment Book Level 3 ( p. 60-61 ) in the visible radiation of the afore-mentioned five facets.

“ Measurement involves a comparing of an property of an point or state of affairs with a unit that has the same property. ” ( Van de Walle, J. A. )  
Therefore, constructs are of import for the kids to assist them separate the mensurable properties of the objects.

## **Review of the Assessment Book**

Concepts in the subject 'Measurement ' trades with the thought of length, size and units. The kids in a twelvemonth 4 category should be able to utilize vocabulary related to length such as: long, longer, short, shortest, tall, narrow, broad etc. They should besides hold an thought what appraisal, measuring and comparing lengths are all about by utilizing the standard units ( centimeter, m and kilometer ) . Besides, the kids should be introduced and asked to propose suited units and equipment for any peculiar measuring. The Assessment book 's chief constructs do fit with the course of study ' , but the Assessment book have missed to advert the kids 's acknowledgment that the longer lengths necessitate a larger unit, that is kilometer, and that the shortest lengths, require a smaller unit, that is the centimetre. Besides, the ability to step and record lengths utilizing formal

units and denary units to the nearest half ex: 50cm = 3. 5m. The Assessment book within its restriction of exercisings does address most of the listed constructs. Basically all the working exercisings and custodies on activities in the Assessment Book are a good agencies of measuring the kid 's impression of the measuring 's chief constructs. The unwritten inquiries assess the cardinal vocabulary merely like in all other activities, and assess the kids 's impression of 'estimation ' . Exercise 1 is a good agencies of measuring whether the kid grasped the thought of comparing different lengths every bit good as usage the suited units and equipment to mensurate a peculiar object. Exercise 2 buttocks if the kids have truly savvied the relationship between different standard units, that is, from kilometer and m and m and centimeter, merely like the 'Write the fitting measuring ' exercising. As the rubric 'Match the appropriate measuring to each object provinces, here the kids are assessed on placing the suited units to fit it with the objects taken from existent life, and acknowledging that longer lengths require a larger unit ( kilometer ) and smaller lengths require a smaller unit ( centimeter ) The last exercising on the Assessment book, once more, assesses the kid 's ability to compare le lengths.

Although the activities in the Assessment Book somehow covers the afore-mentioned mathematical constructs in measuring, there needs to be more exercisings which assess harder undertakings, constructs which kids are likely to hold on and understand by making one exercising. Concepts such as the relationship and transition of different units from kilometer to m, m to cm, and frailty versa.

## Review of the Text Book

Coming to analyse the text edition, we think that most mathematical basic constructs are all addressed. Get downing off from the text edition 's bold headers 'Centimetres ' ( centimeter ) and 'Metres ' ( m ) are thought to be a good agency of a uninterrupted unit abbreviation reminder all through the exercisings.

The exercisings ' rubrics are really child friendly and assessment friendly. One can observe that when the kid is asked to make more than one undertaking in an exercising, the stairss are written in a separate address bubble. For case the first exercising on page 3 invites the kid to: first to happen one of each object, so gauge its length in centimetres and eventually utilize a swayer to mensurate it. This aid the kid to confront a task measure by measure and besides assist him to analyse a job spot by spot subsequently on. It 's besides a good agencies of assisting the instructor analyze and measure the kids 's failings and strengths by set uping the measure which the kids failed to carry through the measure which the kids failed to carry through, therefore it would be a good manner for the instructor to undertake the weak point straight ways. We have noticed that kids are non invited to utilize informal units and besides it would hold been a good manner to present measuring. Besides, sometimes in one exercising there is more than one construct tackled, which makes the exercisings harder.

The first exercising on page 3 makes us inquire what the lessons ; nonsubjective really is. Is the lesson based around the appraisal of eh

measuring of the existent length 's construct? These types of exercising which have in them excessively many aims are likely to do confusion. This could hold been ideal as a alteration exercising instead than the first exercising of the measuring 's subject. Besides neither of the exercising invite the kids to set up when to utilize standard units. All the exercising in the text edition though screen all the constructs. The first exercising on page screens and addresses the vocabulary related to length, appraisal and measuring, whilst the other exercising focuses on taking the suited units. Besides on page 4, kids are assessed on their ability to take the suited criterion unit and into understanding the fractional units to the nearest half even it this construct is non listed in neither the course of study non the appraisal book and besides measuring whether the kids have understood the construct that longer lengths require longer units ex. kilometer. Page 5 focal points on the construct of happening the relationship between meters and centimetres ex.  $3\text{m } 15\text{cm} + 25\text{cm} = 3\text{m } 40\text{cm}$ . The remainder of the lengths exercising assess the kids 's ability to work out jobs and happen the sum and the difference of two lengths.

## **Compare and Contrast the Assessment Book with the Textbook**

Having to compare and contrast the assessment book with the text edition we realized that the vocabulary related to length is absent. Besides the assessment book does non advert that one of the constructs learnt by the terminal of the subject is decimals for meters and centimetres even though at that place go on to be an exercising to 'Write each length in meters utilizing a denary point ' ex. 2. 48m. Adding to this, even the text edition

contains exercisings which concepts chiefly are: taking suited units and utilizing fractional units to the nearest whole. Besides, we think the text edition is more child and teacher friendly as respects to its content. Surely the text edition has got rather more pages with measurings exercisings than the assessment book, therefore scaffolded acquisition is exercised even more. Besides, kids have more chances to hold on the subject's constructs through the multiple exercisings. On the other hand, the assessment book includes practical custodies on activities which help into prosecuting the kids more into the subject whilst making a richer acquisition environment and where constructs are easy understood and applied.

## Procedures

Procedures fundamentally refers to the staging of a lesson so as the kids comprehend the mathematical construct easier. Scaffolding chiefly consists of opposing and listening both from the instructor and the kids. Group work, brace work, category treatments, and custodies on activities are ways which the instructor can use for scaffolding.

The Assessment Book offers a assortment of processes that kids can utilize to learn measuring. Teachers can happen unwritten inquiries which can be discussed as group activity in category. This encourages the kids to portion their ain consequence and clear up any jobs. After such verbal exercisings, the Assessment Book moves on to written exercisings. Here, scaffolding is rather apparent since after the kids work together in category, they will subsequently be invited to work separately.

Activity 2 of the Assessment book ( Practice Activities ) kids are besides cognitively challenged since they are asked to believe, estimation and so, step to measure themselves whether they were got it right or incorrect.

However, non all activities in the Assessment Book purpose to measure processs relevant to a twelvemonth 4 degree. For case, inquiry ( figure 1 ) 'Do you think this line is 3cms, 30cms, or 300cms long ' does non necessitate any peculiar thought accomplishments since here we are covering with eight twelvemonth olds. A more appropriate activity would hold been if kids were given three measurings to take from, but with closer figures, for illustrations 30cms, 4cms, and 50cms. The remainder of the inquiries ( 2, 3 and 4 ) are appropriate for the twelvemonth 4 degree.

Adding to this, we think the 'Match the appropriate measuring to each object ' exercising is excessively simple for kids in twelvemonth 4, although one can still use it as a mental warm up it helps kids visualize and differentiate between the two basic units of measuring ( centimeter and m ) .

The 'Write the duplicate measuring ' exercising is non scaffolded since it does non construct on the old exercising. It would hold been wiser if there was a tabular array or simple exercisings which help in measuring the kid 's apprehension of how many centimetres there are in a metre, and how many meters there are in a kilometre. Hence, this exercising would hold been more effectual if it was given as the subject 's alteration activity in the Assessment Book as it covers all the 3 basic measurings.

The text edition offers assorted processs for kids to larn and hold on the length 's construct. Some exercisings invite the kids to gauge and mensurate length, happening a distance in the schoolroom to fit the length given, happening objects to mensurate, composing how many meters or centimetres and happening the difference or adding up meters and centimetres. Therefore, as it can be seen from the afore-mentioned activities, the exercisings involve written and verbal undertakings and besides activities where kids are provoked to utilize their thought accomplishments.

Childs are foremost introduced to centimetres, so to meters and so, a combination of the two. Hence, we think that the basic units of measuring are scaffolded for the kids to larn and hold better grok the subject.

## **Compare and Contrast the Assessment Book with the Textbook**

There is a sense of process in both books as the inquiries posed to the pupils are scaffolded harmonizing to their troubles, therefore every inquiries physiques on each other. the web site can non be viewed on the cyberspace since it file extention is. doc, nevertheless if you want to see the web site we kindly ask you to entree this nexus

## **Definition**

`` Leting the topic to be debatable agencies letting pupils to inquire why things are, to ask, to seek for solutions, and to decide incongruousness. It means that both the course of study and direction should get down with jobs, quandary, and inquiries for pupils. "



Hiebert Er Al ( 1996, p. 12 ) Van de Walle

Or `` Good jobs can animate the geographic expedition of of import mathematical thoughts, raising continuity, and reenforce the demand to understand and utilize assorted schemes, mathematical belongingss, and relationships. Such wonts are of value non merely in themathematicsschoolroom, but besides in formal and informal acquisition and work environments throughout life. "

## **Critique of Assessment Book**

The Assessment book deficiency job work outing inquiries. Looking carefully at the inquiries in the assessment book we noticed that there are merely two job work outing inquiries. These are found under the heading 'Oral inquiries ' and are inquiries figure 3 and 4. Here, the kids are required to happen the entire length of two pieces of strings and to happen the difference between the highs of two kids. Since these two inquiries are under the header of 'Oral inquiries ' we thought that it would hold been better if these inquiries were presented in a written mode as the kids might happen it difficult to retrieve the lengths when working it out. Afterwards the instructor can exchange the lesson to an unwritten manner where they can discourse the grounds for the methods used.

## **Critique of Text Book**

There are about five narrative amounts in the text edition, which we think are a spot disputing for eight twelvemonth old pupils. For case, on page 5, the kids have to research which routes from school they will necessitate to

run, so as to run 1Km. We think, that this inquiry is misdirecting and the kids would happen it disputing if the instructor will non explicate it good.

On page 7, there is another narrative amount about a puppy and how much did it turn each hebdomad. We besides think that this is disputing for the kids since they can acquire confused from where they are traveling to get down. We thought that this would be a possible manner, how the instructor can show this narrative amount to the kids:

Teacher: What information was given?

Student 1: That the puppy is 55cm long. It was 15cm long when it was born. That it is more than 2 hebdomads old but less than 10 hebdomads old and that it grows the same sum each hebdomad.

Teacher: How can you cognize how much the puppy grew hebdomadally?

Student 1: First I subtracted the puppy 's present length ( 55cm ) with the length when it was born ( 15cm ) . Then I divided the reply ( 40cm ) by 4 by test and mistake since I know the puppy is more than 2 hebdomads old but less than 10 hebdomads old, and got an reply of 10cm growing every hebdomad.

Teacher: Who has a different reply?

Student 2: I divided the puppy 's growing by 5cm and got an reply of 8cm growing per hebdomad.

Teacher: How did you look into your reply?

Student 2: I multiplied the puppy 's hebdomadal growing ( 5cm ) by the figure of hebdomads ( 8weeks ) and got 40cm ( the puppy 's present length ) .

Teacher: How else can you look into the reply?

Student 3: You can add 5cm + 5cm + 5cm + 5cm + 5cm + 5cm + 5cm + 5cm which makes 40cm ( the puppy 's present length )

Teacher: Who agrees? Why?

Students: I do/I do n't

OTHER PROBLEMS FROM PAGE 8

## **Compare and Contrast the Assessment Book with the Textbook**

Even though job resolution is seen in both the Assessment book and the Text book, we think that they are non scaffolded since they do non increase in trouble at every inquiry. The Assessment book has two job work outing amounts which are non hard for the kids to understand. However, narrative amounts found in the text edition are rather disputing for a twelvemonth 4 degree since they require a batch of believing accomplishments.

## **Mentions**

1. Thomas R. Post ( 1988 )Teaching Mathematicss in Grades K-8Allyn and Bacon, Inc Printed in the United States of America