



Multisensory Formative Assessment Classroom Activities

School

Yan Oi Tong Tin Ka Ping Primary School

Background

Yan Oi Tong Tin Ka Ping Primary School is located in Tseung Kwan O. Students are in general willing to learn. Their English language skills vary. The English Language Panel is eager to explore and collaboratively try out strategies to help students learn better.

Needs analysis by the English Language Panel was conducted at the beginning of the collaboration. Findings, which support teachers' observation, show that students are weak in vocabulary.

Rather than having an ambitious target of improving students' vocabulary building skills, the panel decided to have the target narrowed down to students' weakness in spelling. It was agreed upon that the more specific the target set is, the easier it is to determine the learning focus and the corresponding implementation details.

With the goal of improving students' spelling, teachers at Yan Oi Tong Tin Ka Ping Primary School decided to explore how the learning of decoding skills could help students with their spelling. Teachers of P4 decided to co-develop some strategies and work on an aligned syllabus of vocabulary across the classes in the same form level.

Another goal set was to enhance the quality of feedback. Teachers wanted to obtain information about effectiveness of learning and teaching in order to give more specific feedback to students. The use of strategies to strengthen the learning-teaching-assessment alignment became part of the collaboration plan.

Based on the agreed design strategies, teachers designed formative assessment classroom activities and learning practices in order to provide more specific feedback.

Level

Primary 4

Strategies Used

1. Needs Analysis

A needs analysis was conducted prior to the commencement of the collaboration to determine the target area for improvement on learning and teaching.

School documents, which include internal and external assessment paper and reports, were collected. Findings were shared with the panel and formed the focus area used to develop learning and teaching practices of the English Language Panel.

See *Appendix 1* for the list of documents collected from the school for needs analysis purposes.

2. Multisensory Learning Activities as Formative Assessment Classroom Tasks

Multisensory learning activities as formative assessment classroom tasks were used to provide specific feedback to improve learning and teaching. Learning and teaching materials were then designed to build up decoding skills.

The activities were conducted in two sessions:

Goals of Session 1:

- a. Confidence building to try out decoding skills to motivate learning
- b. Students are able to:
 - discover how vowels make up the sound/syllables of a word
 - recognize a phonics rule: one vowel sound one syllable
 - identify the number of syllable(s) each word contains

Session 1: Formative assessment classroom activities with feedback collected

Formative Assessment Activities	Objectives	Feedback on Learning and Teaching
A. Discover vowels that help sound out the words	<ul style="list-style-type: none">• Get students to discover a phonics rule: vowels are present in all words and help the sounding of words	<ul style="list-style-type: none">• Students were aware of the phonics rule• The task was targeted to be manageable by the majority of students; hence, confidence of less able students was boosted and students were motivated to engage in the lesson
B. Phonics sliders	<ul style="list-style-type: none">• To provide students opportunities to apply their knowledge of letter-sound relationships to sound out unfamiliar words	<ul style="list-style-type: none">• The task made possible for teachers to immediately<ul style="list-style-type: none">○ Notice many students had difficulty in sounding out 'ip' sound e.g., lip, nip, zip○ Identify student needs for extra individual support

Formative Assessment Activities	Objectives	Feedback on Learning and Teaching
C. Syllable Clapping Game & Feeling Your Jaw	<ul style="list-style-type: none"> To enhance students' phonological awareness through multisensory learning tasks Enhance students' awareness of syllables in words Identify the number of syllables contained in each word 	<ul style="list-style-type: none"> As a follow-up of the syllable clapping game in classes with less able students, they were asked to feel their jaw movement to enhance their phonological awareness of vowel sound Teachers found the teaching approach of adopting multisensory learning tasks makes the learning more sustainable; the approach results in better memory of the skills obtained by students, especially for students with special additional learning needs

See *Appendix 2* for formative classroom activities with examples from Session 1.

Goal of Session 2:

a. Confidence building by improving decoding skills to further motivate learning

b. Students are able to:

- apply the basic rule to real practices
- decode unfamiliar words by correctly breaking each word into chunks (and sounding out each syllable correctly)

Session 2: Formative assessment classroom activities with feedback collected

Formative Assessment Activities	Objectives	Feedback on Learning and Teaching
D. Chunk it down!	<ul style="list-style-type: none"> Develop the skill of breaking a word down into smaller parts (See <i>Worksheet 2</i>) Self-explore the one vowel one syllable phonics rule 	<ul style="list-style-type: none"> Students' confidence to decode unfamiliar words into syllables built up through this and previous activities Students will eventually be able to apply this strategy as regular practice
E. Tear it down!	<ul style="list-style-type: none"> Consolidate the phonic skills of decoding unfamiliar words through tactile learning (See <i>Worksheet 3</i>) 	<ul style="list-style-type: none"> It allows continuous practice of applying phonic skills acquired among students and enables giving of instant feedback on learning to students

See *Appendix 3* for formative assessment classroom activities with examples from Session 2.

Actions Taken

Three workshops were held during this year's collaboration. The first workshop on assessment literacy for all teaching staff was held in early September, followed by a needs analysis workshop for English Language teachers in early November. The third workshop, on assessment literacy for curriculum leaders, was organized in January 2020.

A meeting with core group members was held at the beginning of the school term to discuss focus of the collaboration. Co-planning meetings were held to discuss teaching strategies and develop learning and teaching materials.

Class observation was conducted in January 2020. Strategies discussed and materials developed were tried out.

Impact

1. Student Level

Right from the beginning with the discovery of 'vowels help sound out the words', students' interest in letter-sound relationship was aroused. The passion carried on throughout the other activities. When it came to the 'Tearing down' worksheet, some less able students struggled a bit in decoding unfamiliar words. Based on the instant observation, teacher grasped this opportunity to consolidate the phonic skills of decoding and improvement was seen in a second trial in using the 'Tearing down' worksheet.

Students have gradually developed the skill of breaking a word down into smaller parts and read the words correctly. They have built up confidence to decode unfamiliar words. With regular practice, it is believed that students will eventually be able to apply this strategy as a result of internalization.

Students have gained confidence to experiment sounding out unfamiliar words with the use of the skills acquired. Their awareness of phonics skills has been enhanced. They are able to identify the number of syllables contained in different words. For the less able ones, they are more willing to make attempts to read aloud words regardless of their accuracy.

Teachers did dictation with students in July, after school resumes from the suspension due to COVID-19. Improvement in students' spelling was noticed.

2. Teacher Level

The collaboration has enhanced teachers' knowledge and skills with assessment literacy. All formative assessment activities were designed to meet and fulfill the corresponding learning objectives. Students' performance in the assessment activities provides useful feedback on learning and teaching. Through regular professional discussions with peers, teachers have gained more knowledge of assessment literacy.

With their enhanced knowledge and skills in assessment for learning teachers have put more focus on students' oral feedback in the lessons and adjusted their teaching strategies accordingly. For example, if students showed difficulties in pronouncing words, teachers would guide them to apply the skills learned in previous lessons. Their learning performance enabled teachers to reflect on their teaching and planning of subsequent lessons.

Teachers are very pleased to see that students have applied those strategies i.e., chunking/ spotting vowels/ hands-clapping syllables learnt in the lessons when they had to sound out unfamiliar words. It was obvious that those ways have facilitated students' learning and will continuously be adopted in the future.

Teachers have been better informed about students' strengths and weaknesses with formative classroom activities in place.

3. Curriculum Level

The Learning-Teaching-Assessment Cycle has been strengthened through the horizontal alignment of the P4 spelling syllabus and formative assessment activities.

As oppose to randomly selecting words to test students, P4 English teachers worked out a list of core words. Only the core words that classes across P4 had learned were tested in the formative assessments.

The P4 English curriculum is with a better aligned syllabus on the core vocabulary for spelling. The assessment of students' learning is aligned with what has been taught and learned.

The use of multisensory and tactile learning activities is very effective in helping the students to identify the syllables of unfamiliar words and sound the words out. These are the strategies that teachers would like to adopt more in their future teaching.

4. Departmental Level and School Level

The English Language Panel took the opportunity of collaboration to reflect upon the learning and teaching process based on the Planning-Implementation-Evaluation (P-I-E) model.

The collaboration reemphasised the importance of conducting a thorough and in-depth needs analysis in the learning and teaching process.

The panel found the experience of gathering and working out teaching plans based on the areas of weaknesses among the students fruitful. Better communication and understanding have been achieved through continuous discussion during collaborative lesson planning meetings.

Way Forward

The collaboration this year has set the wheel in motion on driving formative assessment as a teaching model in the school.

1. Promotion of the following in other levels by the English Language Panel:
 - strengthening of the alignment of learning, teaching and assessment
 - formative assessment classroom activities to facilitate assessment as learning
2. The use of data to conduct needs analysis in other subject panels.

If the readers are interested in learning more about assessment literacy, the following books are useful references.

Bachman, L. F., & Palmer, A S. (1996). *Language testing in practice*. Oxford University Press.

Fisher, D., Frey, N., & Hattie, J. (2016). *Visible learning for literacy, Grades K-12: Implementing the practices that work best to accelerate student learning*. Corwin.

Tileston, D. W. (2004). *What every teacher should know about student assessment*. Corwin Press.

Appendixes

Appendix 1: List of Documents Collected from the School for Needs Analysis Purposes

External Assessment	Primary School <input type="checkbox"/> P3 TSA Results and School Reports <input type="checkbox"/> P6 TSA Results and School Reports (Including the Item Analysis Report sorted by BOTH sub-paper AND Basic Competencies)
	Secondary School (2017-2018) <input type="checkbox"/> Hong Kong Attainment Test (Pre-S1) Results <input type="checkbox"/> S3 TSA Results and School Reports <input type="checkbox"/> HKDSE Results and Statistical Reports <input type="checkbox"/> Value Added Information School Reports
Internal Assessment (2016/17 & 2017/18 of P1-P6 or S1-S3)	<input type="checkbox"/> Schemes of Work + Names of Textbooks <input type="checkbox"/> Test and Exam Papers + Answer Sheets <input type="checkbox"/> Answer Keys / Marking Schemes <input type="checkbox"/> Results (Excel File) <input type="checkbox"/> Student Performance Analysis/Evaluation Reports

Appendix 2: Formative Classroom Activities with Examples from Session 1

A. Discover Vowels that Help Sound Out the Words

Teacher listed out some words previously learned with vowels being taken away, e.g., shpping (shopping), wshing (washing), dgtl (digital), cmptr (computer) and ask students to sound out the words.

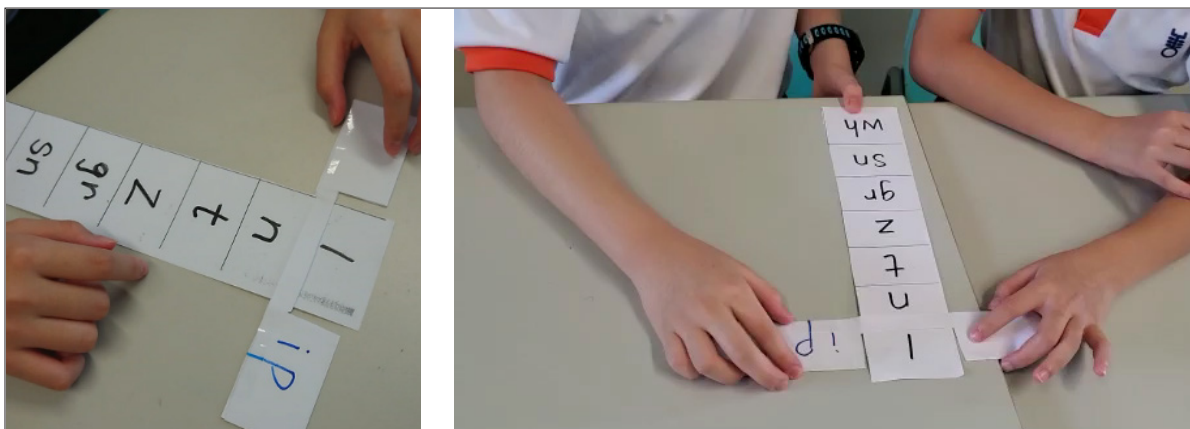
B. Design of the Phonics Slider

Consonants used: d, f, h, j, k, l, m, p, t

To match with:

- (i) ot
- (ii) un
- (iii) ip

Students first practiced sounding out the unfamiliar words individually, then they were paired up and read aloud together.



C. Syllable Clapping Game & Feeling Your Jaw

Teacher showed vocabulary items previously learnt. Students were asked to break up the words into syllables and clap their hands.

Less able students were followed up by another task. To enhance phonological awareness, they were asked to find out the number of syllables by feeling the number of times their jaw drops to say a vowel sound.

e.g., park (1 syllable), digital (3 syllables), camera (3 syllables), shopping (2 syllables), refrigerator (5 syllables), housing (2 syllables)

<p style="text-align: center;">Pairwork</p> <p style="text-align: center;">Put the following words into the syllable table below.</p> <div style="text-align: right; margin-bottom: 5px;"> <input style="float: right; margin-left: 10px;" type="checkbox"/> </div> <p style="text-align: center;">Words</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>holiday</td><td>lunch</td><td>stop</td><td>tennis</td><td>drama</td></tr> <tr><td>popular</td><td>understand</td><td>Cinderella</td><td>supermarket</td><td>strong</td></tr> <tr><td>October</td><td>never</td><td>hamburger</td><td>jump</td><td>wonderful</td></tr> <tr><td>put</td><td>carton</td><td>butter</td><td>watermelon</td><td>collecting</td></tr> </table> <p style="text-align: center;">Syllable table</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th></th> <th>one syllable</th> <th>two syllables</th> <th>three syllables</th> <th>four syllables</th> </tr> <tr><td>1</td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td></tr> </table>	holiday	lunch	stop	tennis	drama	popular	understand	Cinderella	supermarket	strong	October	never	hamburger	jump	wonderful	put	carton	butter	watermelon	collecting		one syllable	two syllables	three syllables	four syllables	1					2					3					4					5					<p style="text-align: center;">Pairwork</p> <p style="text-align: center;">Put the following words into the syllable table below.</p> <div style="text-align: right; margin-bottom: 5px;"> <input style="float: right; margin-left: 10px;" type="checkbox"/> </div> <p style="text-align: center;">Words</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>butter</td><td>salad</td><td>bad</td><td>yesterday</td><td>drama</td></tr> <tr><td>popular</td><td>put</td><td>tomato</td><td>never</td><td>strong</td></tr> <tr><td>October</td><td>carton</td><td>hamburger</td><td>jump</td><td>talk</td></tr> </table> <p style="text-align: center;">Syllable table</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th></th> <th>one syllable</th> <th>two syllables</th> <th>three syllables</th> </tr> <tr><td>1</td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td></tr> </table>	butter	salad	bad	yesterday	drama	popular	put	tomato	never	strong	October	carton	hamburger	jump	talk		one syllable	two syllables	three syllables	1				2				3				4				5			
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Appendix 3: Formative Assessment Classroom Activities with Examples from Session 2

D. Chunk It Down!

T: How many syllables are there in the word ‘digital’?

S: Three.

T: How can we break up this word into parts?

S: ... (various answers)

T: Right, we can chunk the word down according to the number of syllables.

Teacher demonstrated how to chunk the word by tearing a word printed on a slip of paper.


For example,

di/gi/tal	→	di/gi/tal x x x
ca/me/ra	→	ca/me/ra x x x

Teacher tore the paper into parts when reading the chunking down the word.

Teacher reminded the students to find out the vowel(s) and noted the number of syllables before doing the chunking. Students in groups get one of the sets shown below.

Chunk it down! Break up the words into syllables with a marker.	Set A	Chunk it down! Break up the words into syllables with a marker.	Set B
r a d i o		r u n w a y	
c a t e r p i l l a r		e l e c t r o n i c	
m e t a l		m a r b l e	
u n d e r s t a n d		h o l i d a y	

 Chunk it down! Break up the words into syllables with a marker.	Challenge
a l l i g a t o r	
p a p a y a	
i n s t r u m e n t	
f o r g e t f u l	

E. Tear It Down!

1. Students in groups were given a list of unfamiliar words.
2. Each student was responsible for one word. They were required to chunk the words.

They had to break up the word into separate syllables by tearing the paper accordingly.

For example:

wa/ter/me/lon	fun/da/men/tal	for/get/ful
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3. Students glued their work on a piece of A3 size paper.

They then read aloud the words after chunking. Students were asked to compare their work with other groups.

The following materials are the different sets of words used in the lesson.

Set A

c o c o n u t
a p r i c o t
a v o c a d o
l o n g a n

Set B

g o r i l l a
h i p o p o t a m u s
o c t o p u s
e l e p h a n t

Set C

w a t e r m e l o n
f u n d a m e n t a l
h e l i c o p t e r
a l l i g a t o r

Set D

d i l e m m a
a p p e n d i x
h o r i z o n t a l
c a t e r p i l l a r

