

Workshop on “Free Quality Kindergarten Education Scheme” Worksheet 1: Staffing Requirements and Arrangement

Background:

Joyful Learning Kindergarten is a kindergarten (KG) joining the Pre-primary Education Voucher Scheme (PEVS). The numbers of pupils enrolled in half-day (HD) and whole-day (WD) classes are as follows:

| Classes | AM | PM | WD |
|----------------------|-----|----|----|
| No. of pupils | 120 | 30 | 20 |

Question 1:

Joyful Learning Kindergarten has employed sufficient teachers possessing Certificate in Early Childhood Education (C(ECE)) qualifications (including the principal) based on the teacher to pupil ratio (TP ratio) of 1:15. What are the minimum numbers of C(ECE) teachers required in the AM session and PM session respectively in Joyful Learning Kindergarten?

Answer 1:

Total no. of pupils in the AM session:

$$\begin{array}{ccc}
 \boxed{120} & + & \boxed{20} = \boxed{140} \\
 \text{No. of pupils in} & & \text{No. of pupils in} & & \\
 \text{AM classes} & & \text{WD} & & \\
 & & \text{classes} & & \\
 & & & & \text{A}
 \end{array}$$

No. of C(ECE) teachers to be on duty in the AM session:

$$\begin{array}{ccc}
 \boxed{140} & \div & \boxed{15} = \boxed{9.3} \\
 \text{Total no. of pupils} & & \text{TP ratio of 1:15} & & \text{9.3} \\
 \text{in the AM session} & & & & \text{(i.e. 10)} \\
 \text{(i.e. A)} & & & & \text{Round up the} \\
 & & & & \text{answer to the} \\
 & & & & \text{nearest integer}
 \end{array}$$

Total no. of pupils in the PM session:

$$\begin{array}{ccc}
 \boxed{30} & + & \boxed{20} = \boxed{50} \\
 \text{No. of pupils in} & & \text{No. of pupils in} & & \\
 \text{PM classes} & & \text{WD} & & \\
 & & \text{classes} & & \\
 & & & & \text{P}
 \end{array}$$

No. of C(ECE) teachers to be on duty in the PM session:

$$\begin{array}{ccc}
 \boxed{50} & \div & \boxed{15} = \boxed{3.3} \\
 \text{Total no. of pupils} & & \text{TP ratio of 1:15} & & \text{3.3} \\
 \text{in the PM session} & & & & \text{(i.e. 4)} \\
 \text{(i.e. P)} & & & & \text{Round up the} \\
 & & & & \text{answer to the} \\
 & & & & \text{nearest integer}
 \end{array}$$

Question 2:

How many additional teachers working WD should Joyful Learning Kindergarten employ in order to fulfill the overall requirement in TP ratio of 1:11 (**principal not included**) under the “Free Quality Kindergarten Education Scheme” (the Scheme)?

Answer 2:

To fulfill the overall requirement in TP ratio of 1:11 (**principal not included**) under the Scheme, the number of teachers Joyful Learning Kindergarten should employ is as follows (working WD is taken for calculation):

$$\left(\begin{array}{|c|} \hline 150 \\ \hline \end{array} \div \begin{array}{|c|} \hline 2 \\ \hline \end{array} + \begin{array}{|c|} \hline 20 \\ \hline \end{array} \right) \div \begin{array}{|c|} \hline 11 \\ \hline \end{array} = \begin{array}{|c|} \hline 8.6 \\ \text{(i.e. 8)} \\ \hline \end{array}$$

Total no. of pupils in HD classes No. of pupils in WD classes TP ratio of 1:11 Round down the answer to the nearest integer

(Hint: In terms of calculating the number of teachers, 2 teachers working HD in either AM or PM session only should be counted as 1 teacher working WD. For example, if there are 8 teachers working in the AM session and 4 teachers working in the PM session respectively in a kindergarten, the number of teachers working WD should be $(8 + 4) \div 2 = 6$ for the purpose of calculating the number of teachers.

Therefore, the number of teachers Joyful Learning Kindergarten should employ additionally is 2.

Question 3:

How can the teacher arrangement in Joyful Learning Kindergarten meet the TP ratio requirements of 1:15 and 1:11 under the Scheme at the same time? (You may choose more than one option)

To be displayed on PowerPoint:

(The principal is included in the following numbers of teachers)

- i. 9 teachers working WD
- ii. 8 teachers working WD and 2 teachers working HD in the AM session
(Correct)
- iii. 6 teachers working WD and 4 teachers working HD in the AM session