

CHAPTER FOUR

EFFECTIVE LEGAL REQUIREMENTS; IMPROVING LEGAL REQUIREMENTS ON 'IRON TRIANGLE' FEATURES

4.1 Introduction

Quality of child care may be divided into process qualities and structural qualities. Structural qualities are features which are often translated into laws and regulations and are often related to process qualities. For instance, lower adult to child ratio which is the feature of structural quality will encourage better interactions between the child care provider and the children which is the process quality. This is because taking care of fewer children can give more space and chances to the provider to have a better relationship with the children. Consequently, a warm relationship between provider and children would result in better growth of the children, ensuring good quality child care.

Previous chapter underlines six structural features to be examined further in establishing effective legal requirements. These features are the key indicators to quality child care in terms of legal requirements. This chapter aims to evaluate the features which are known as the 'iron triangle'. This first part is specifically to evaluate the position in Malaysia pertaining to adult to child ratio, group size and the education and training of child care providers. The laws and regulations governing these features are scrutinised further. The next question to be analysed is whether ratio, group size as well as education and training are the significant predictor in predicting qualities in the effort to improve the child care sector through laws and

regulations. The analysis in this chapter then answers the question whether the legislation on ratio, group size and education and training need to be strengthened in enhancing the quality of child care centres.

It is helpful to consider the studies by international bodies and researchers that have been conducted in other countries, to have an idea on the ratio, group size, staff's education and training towards children's growth in terms of their physical, cognitive, and socio-emotional aspects. Most of the studies involving structural qualities encompass the iron triangle features i.e. adult to child ratio, group size and child care providers' education and training in examining how these structural quality features may affect the process qualities, and ultimately the development of the children. At the end of the chapter, a conclusion is made on how far these three structural features affect children development and thus need to be given much attention rather than other features. The question to be answered in this chapter is whether lower adult to child ratio, smaller group size and higher qualification of child care providers will provide a larger effect on children's growth. If the answer is yes, to what degree should these features be given attention in terms of regulating them in the current laws and regulations of child care in Malaysia?

It is predicted that these features affect the children's growth but the degree of the effects are inconclusive due to inconsistent results from the studies that have been conducted globally. Therefore, there is a need to further clarify and analyse these features to be legislated properly in Malaysia's laws and regulations. Thus, in improving the laws and regulations, focus will be given to the most result proven and effective features of structural quality.

4.2 Legal Requirement on Adult to Child Ratio

In early childhood education and care, the term ‘adult to child ratio’ means the number of children that should be taken care of by an adult or by a care provider. Looking at the studies and reports pertaining to ratio, the terms used in describing them are varied and inconsistent. In order to describe that there are more children per child care provider, some researchers would describe it to be higher ratio. This means a lower ratio shows a lower number of children. On the other hand, certain researchers state that a higher ratio means that there are fewer children to be taken care of and a lower ratio means a larger number of children to be taken care of by an adult or child care provider. Notably, this thesis uses the term lower ratio to mean fewer children to be cared for by a child care provider.

A question needs to be answered in this chapter, firstly whether the feature of ratio is significant and important in ensuring high quality child care? The impact produced by lowering the ratio therefore should be examined to measure how far ratio creates impacts on children’s wellbeing. Accordingly, these impacts are traced through examining the impacts or results in the studies that validate how far ratio predicts quality of child care. Basically, researchers try to relate the impact of ratio directly towards the cognitive and social behaviour of children. There are also researchers who locate the impact or relationship of ratio and towards process quality such as the interactions between child care providers and children, which in turn will affect the children’s growth and development. The staff would be more sensitive and would have more chance to provide warm interaction with the children when fewer children are under their care. Furthermore, the case involving negligence in child care centres may be attributed to the lack of numbers of child care providers, contravening

the requirement stipulated in the laws and regulations. One of the maltreatment cases which has caused the death of an infant was suspected to be due to the inadequate numbers of child care providers who were caring for thirty-nine children (The Star, 2014). Generally, adult to child ratio may provide positive outcome to the children. This means that a lower ratio and smaller group size can benefit the children's development especially on the ability of the care provider to deliver warmth and responsive interactions with the children. In summary, earlier studies conclude that ratios are important towards children development and to provide positive impact towards their cognitive and social wellbeing (Bennett, 2008; Fiene, 2002; HEROS Inc., 1997; Mathers, Sylva, Hansen, Plewis, Johnson, & George, 2007; Nye, Hedges, & Kostantopoulos, 2000; Ruopp, 1979; Vandell & Wolfe, 2000) in (Fern, 2009). Although most of the studies in early childhood education which prove that ratio results in higher quality services for children involves preschools, there is a suggestion that there is positive relation between ratios and child care quality involving infants (Whiteford, 2015). Therefore, the positive outcome of adult to child ratio in infant care and child care can be deduced.

Moreover, according to Research on Ratios, Group Size, and Staff Qualifications and Training in Early Years and Childcare Settings by Thomas Coram Research Unit, Institute of Education, University of London (Munton et al., 2002), it is reported that adult to child ratio has a significant impact on the quality of childcare. This research is important as it analyses twelve empirical studies where eight of them are from the United States of America, two from New Zealand, one from Canada, and another that involve several countries like Germany, Portugal and Spain.

Nevertheless, ratio cannot be taken as a sole feature that impacts the quality of children. It is not independent from other factors such as group size, salary of the providers, curriculum, physical environment and so on (Howes and Marx, 10090; Blatchford et al, 2003; Sylva et al, 1997; Burchinal et al, 2008; Wylie, Thomas and Kerslake, 1996; Munton et al, 2002) in (Fern, 2009). High numbers of child care providers with low qualification or with low job satisfaction will not bring significant impact towards quality child care. A high quantity of child care providers cannot guarantee that the children will be taken care of if most of them are not well equipped with the required skills and thus do not interact with the children in an interactive way. Therefore, a lower ratio may not always be better.

It is claimed that, a lower ratio may not be decisive in ensuring the quality if the qualification of the staff is very poor. High numbers of unqualified child minders will not result in a significant development of a child. There is no optimum effect when the factor of ratio stands alone (Munton et al., 2002). Therefore, other factors such as staffs' education, training and wages, group size are interrelated in producing positive outcome towards the children.

That is why most research on quality child care mostly discusses the effect of ratio together with other indicators such as group size and training. Therefore, to highlight the effect of ratio alone in ensuring high quality child care could not be done. Thus, there is a general consensus that ratios when combined with other important structural features such as group size, child care providers' trainings and education, salary, and physical environment, ratio is considered as the key player in achieving the global quality impacting children outcomes. None argue that ratios are

unimportant. However, to what extent does ratios produces impact? The results are mixed and inconsistent (Fern, 2009).

Generally, the associations of structural qualities and process qualities are not conclusive (Sílvia Barros et al., 2016; Slot et al., 2015). This means that there are mixed findings in showing that structural qualities such as ratio gives impact towards good interaction in child care settings. There are studies which show good relationship, but there are studies that result in weak relations or no relations at all (Phillips et al., 2000; Phillipsen et al., 1997). Specifically, in terms of ratio, more recent studies involving empirical evidence that examine ratio show mixed and inconclusive result (Bowne, 2017). The reason for these inconclusive findings may be due to the limitation of variance of structural features as the observation assessment has always been done in a single programme model.

Furthermore, the recent studies of Dutch child care have shown that there are no significant association between adult to child ratio, group size and quality child care (Slot et al., 2015) which contradicts some previous Dutch studies studying factors predicting quality child care. The contradictory results from Slot et al. (2015) may be due to the stricter regulations legislated by the introduction of a new legislation in 2005 and then in 2010 which decrease the variance and resulted in a weak relationship. More efficient enforcement force too may be the cause of the contradictory results by the establishment of co-operation between the Municipal Health Authorities and the Inspectorate Education (Slot et al., 2015).

On top of that, cross-country studies conducted by Cryer et al. (1999) have found different results in different countries. There is a significant relationship

between adult to child ratio and process quality in Germany and the United States of America but the results are not the same in Portugal and Spain.

As a result the impact of ratio in ensuring high quality child care are inconclusive, the weightage of the factor towards the quality of early child care services need to be examined. From this, the law makers would have information in drafting the standards to be included in the regulations especially in determining the minimum baseline of the suitable ratio to be enforced in the legislations. This is to ensure that laws and regulations that are drafted are not merely to enforce laws but also to encourage compliance. The laws drafted should not burden the operators and hinder them from prioritising the safety and education of the children.

It is especially important to locate whether the same effect will occur in all ranges of class sizes (Bowne, 2017) such as comparing 10 to 20 children and 30 and 40 children and ratios of 1:5 to 1:3 and 1:9 to 1:7. As there are no conclusive findings on the degree of how far these structural features impact children's growth, a careful move is a need in implementing and inserting these features especially in the regulation. This is because these features are not the most cost effective ways as this will raise the cost of child care requiring the needs to hire more care providers. It is suggested that alternatively, the cost should be allocated more on the skills and knowledge of the staff as the results may be greater and easier to implement.

From the meta-analysis that has been done using data from 60 years of research (Perlman et al., 2017), the result shows a significant relationship of adult to child ratio to pre-academic performances i.e. the cognitive and achievements of the children. However only a small significant relationship is seen and can only be seen at the lower end. The most important part from this research is the result that shows only

very low ratio which is 7.5:1 and lower and very small group size with 15 or less children shows significant relationship even though it is not a large effect. Meanwhile, for socio-emotional outcomes, the early conclusion is that very small group size has an effect on socio-emotional outcomes of the children but not on the adult to child ratio.

The findings illustrate that only very low ratio and very small group size will affect the children's growth but the size of relationship is very small. It is important to note that from this meta-analysis, the results show that there is no significant result to the children's outcomes when the ratio is above 7.5:1 and the group size consists of 15 children and above. This sum up that very low ratio and group size only can produce significant outcome although the size of relationship is modest. The conclusion made is that the suitable ratio to be included in the regulations is below 20 for group size and for adult to child ratio, the adequate regulation should be below 10:1 for children aged three to five years old.

Therefore, the calculation in improving the provision of child care is not as simple as reducing the number of ratio or group size, as the size of the relationships between ratios with children's development is modest. Therefore, focusing on this aspect to lower the ratio requires limitation to be used as the tool to improve the quality of child care centres.

4.2.1 Lower or Higher Ratio: What is the Best Strategy?

Thus, what is the ideal ratio that is suitable in ensuring child care quality? There are a few ways that have been practised internationally on how to count ratio. It is asserted that the precise method is to count the numbers of staff within a certain

stipulated length of time in a certain and specified area (Munton et al., 2002). Besides that, the ratio is often set according to the age of the children, with special provision for children with disabilities. Therefore, there should be a difference between the ratios that involve infants from that of toddlers. It is submitted that lower ratio and smaller group size may be more important for infants and toddlers as compared to children aged three years and above (Huston, 2008).

In Malaysia, it is clearly stipulated in Regulation 18 of Child Care Centre Regulations 2012 that in counting ratio, child care providers' number do not include the operator, manager, supervisor, and employee of the child care centre. Regulation 18 of CCCR 2012 states that,

'(1) An operator shall ensure that the ratio for a child care provider and a registered child care provider to a child in a child care centre is in accordance with the ratio as specified in the Third Schedule.(2) For the purpose of calculating the ratio under sub-regulation (1) –(a) in relation to a work place based, community based or institution based child care centre, an operator, a manager, a supervisor and an employee of the child care centre shall not be regarded as a child care provider or registered child care provider; and (b) in relation to a home based child care centre, an operator may be regarded as a child care provider or registered child care provider'.

The formulation is not straight forward, noting that by having more staff caring for fewer children a higher quality of child care setting would be materialised. There is a need to scrutinise the underlying philosophy and locality to choose the best number to suit the country concerned (Munton et al., 2002). The choice of numbers should be able to improve the interactions between staff and children. In another word, there is no universal best practice or fixed ratio to be practised by all countries in the world.

There is no consensus or single indicator on what is the ideal ratio that should be practised by child care centres. However, there are suggestions that for children

below two years old, the ratio should not be less than 1:3 or 1:4 in order to allow more individual interaction between the child care providers with each child (Taguma, Litjens, & Makowiecki, 2012a).

The recommendation is mostly given in range rather than specific number of children per staff. As recommended by US Department HHS and Canada PedSoc, the recommended ratio for 11 months old is 1:3 and the recommended group size is six children per group. Meanwhile for 13 months old, the US Department HHS recommendation is 1:3 for group size of six, while Canada PedSoc recommends more children with the ratio of 1:4 in the group size of eight. For 25 month old, the US Department HHS and Canada PedSoc recommend the same ratio with either one staff taking care of four or five children in a group size of eight or ten children. Furthermore, it is claimed that the ratio set in Finland is one of the best settings in OECD countries. Finland has set one adult to take care of four children for children aged zero to three year old. Meanwhile the ratio for above three year olds is 1:7 (Taguma et al., 2012a).

Therefore, looking at the regulations stipulated in Malaysia, the adult to child ratio is satisfactory as recommended by professionals and studies. As the result of lowering the ratio is also inconclusive based on the results from international studies, it is proposed that with regard to adult to child ratio, the Malaysian regulation on this legal requirement may not be changed or lowered as this will burden the child care operators especially in terms of bringing up the cost.

It is submitted that reducing the ratio and size of the group will cause some difficulties mainly in locating more new qualified providers equipped with trainings and this measure will hike up the price of child care (Bowne, 2017). To worsen the

situation the budget on other more important features may be reduced to suit this demand of adding new child care providers. This may affect the child care settings as a whole.

4.2.2 Should the Existing Laws and Regulations on Adult to Child Ratio Be Relaxed?

As there is no definite result showing a clear association of relationship between ratio and child outcomes, should the existing regulations on ratio be relaxed? As mentioned in a meta-analysis and systematic review, although the association is very small, this should not be taken as an argument to relax the law as the limitations in the research is that the ratios are within the permissible range of the local legislations (Perlman, 2017). Thus, it is concluded that there is no need to lower the ratio if the existing ratio has met the requirement as proposed by most of the international bodies and studies. The focus therefore is in improving the quality of early childhood care and education, on other important legal requirements.

As far as adult to child ratio is concerned, looking at Malaysia's regulation, Malaysia has an acceptable statutory provision on ratio as compared to the recommended ratio stated by international bodies and agencies. Regulations 19 of Child Care Centre Regulations 2012 stipulate that for children from birth to twelve months, the ratio is 1:3, while for children above 1 year to 3 year, the ratio is 1:5. Meanwhile, for children above three years to four years, the ratio is 1:10. Compared this to the recommended ratio by the American Academy of Paediatrics (APA), similar provision can be observed for infants' settings where APA recommends 1: 3 for children from birth to twelve months. However, APA divides the age of children to

6 categories. The ratio recommended is 1:4 for children 12 months until 30 months and 1:5 for children from 31 to 35 months. This means that in comparison, Malaysia do not categorise the age of children according to months. The difference can also be seen involving children of three years where smaller ratio can be seen that is 1:7 compared to Malaysia to have 1:10. In addition, the recommended ratio for four and five years old also does not reach ten children per adult as the recommended ratio is 1:8.

Meanwhile, looking at the practise of Australia adult to child ratio is governed under Regulation 123 of Australia Education and Care Services National Regulations 2012 which states that:

'The minimum number of educators required to educate and care for children at a centre-based service is to be calculated in accordance with the following ratios — (a) for children from birth to 24 months of age — 1 educator to 4 children; (b) for children over 24 months and less than 36 months of age — 1 educator to 5 children; (c) for children aged 36 months of age or over (not including children over preschool age) — (i) for all participating jurisdictions other than Western Australia — 1 educator to 11 children; (ii) for Western Australia — 1 educator to 10 children; (d) for children over preschool age in a jurisdiction, the relevant ratio (if any) set out in Chapter 7 for that jurisdiction'.

The ratio practised in Australia is quite similar, with the difference of an addition of one child, for children from birth to 24 months. Meanwhile, for children from 25 months to 35 months the ratio is the same as Malaysia which is 1:5. Malaysia even has fewer ratios than Australia for children 36 months and above. The ratio stipulated in CCCR 2012 is 1:10 while in Australia is 1:11.

Examining the Singapore provision on ratio which is governed under Regulation 25 (1) of Singapore Child Care Centres Regulation 2012 states , it is stated that:

‘Subject to paragraphs (2), (5) and (6), a licensee must ensure that the ratio of educarers to children enrolled in the licensee’s child care centre is not less than — (a) 1:5 in respect of all children who are aged 2 or more months but not older than 18 months of age; (b) 1:8 in respect of all children who are older than 18 months but not more than 30 months of age; and (c) 1:12 in respect of — (i) all children who are older than 30 months but younger than 3 years of age; and (ii) all children who are aged 3 years or older and are enrolled in any Nursery 1 class conducted at the licensee’s child care centre.’

Thus, the stipulated ratio for infant and toddlers from two months until 18 months is 1:5, while for children more than 18 months but below 30 months is 1:8, and for children above 30 months but below three years old, and three years above is 1:12. It is seen here that Singapore has a bigger ratio in each category of children. However, the categorisation of age in Singapore is slightly different as compared to Malaysia and Australia. In addition, it is interesting to note that in Singapore, Regulation 25 (2) lessen the burden of the operator in preparing adequate staffing when there are para-educarers available to assist the educarers. It is mentioned in Regulation 25 (2) that :

‘Notwithstanding paragraph (1), where an educarer is assisted by one or more para-educarers, the ratio of educarers to children enrolled in a licensee’s child care centre must not be less than — (a) 1:12 in respect of all children who are older than 18 months but not more than 30 months of age, and (b) 1:18 in respect of —(i) all children who are older than 30 months but younger than 3 years of age; and (ii) all children who are aged 3 years or older and are enrolled in any Nursery 1 class conducted at the licensee’s child care centre’.

This involves children above 18 months to 30 months with the ratio of 1:12, and for children above 30 months and younger than three years, and for three years old children the ratio is 1:18. There is also provision to practise different ratio when the children arrive or leave the child care centre or during rest period. The educarers

may take care of a bigger number of children at these time compared to when the lesson begin.

Though recent systematic review and meta-analysis analysing the relationship between child-staff ratios in child care and the impacts to the children's development highlight the small significance, if any, what ratios have towards the child outcome (Perlman, 2017), it is emphasised nevertheless in the conclusion of this research that this findings should not be taken as an indicator to relax the regulations on ratios. In addition, the authors also mentioned that there may be some limitations in their methodological aspects. Hence, although there are inconsistencies with regard to association between adult to child ratio to process quality, this may due to external factors such as the change of regulations and limited variable that has been used in the research. The importance of ratio and group size therefore shall not be nullified as there are studies which reported positive outcomes of quality from low ratio and small group size.

Besides that, an absence of any significant relationship does not always mean negative impact notwithstanding the negative economic implication as lower ratio and smaller group size may lead to higher cost of child care services. It is believed that the positive outcomes outweigh the negative impact. It is therefore worthwhile to enforce the existing provisions on ratio as determinants of quality which will later create better child care settings for the children, especially in Malaysia. Hence, this study specifically concludes that within the ratios permissible by the regulations, improvements in ratios do not give great impact to the children's outcome. As such, the suggestion is made for the focus to be given to other cost effective structural features.

4.3 Legal Requirement on Group Size

Group size means the number of a group of children who has been placed in a specified space or a room with more than one adult or child care providers. For early child care settings especially in child care centres and nursery, the term group size are commonly used while for kindergarten the term usually used is 'class size'. While ratio determines how many children should be supervised by an adult at a time, group size will determine the total maximum numbers of children that can be cared for in a setting.

Research shows that in ensuring quality development of children, the child care providers should have positive characteristics. These positive characteristics are associated with the group size that they have to take care of. Therefore, it is submitted that child care providers may perform better in smaller group size of children (Munton et al., 2002). Nevertheless, group size may not be the conclusive factor influencing the characteristics of the child care provider as other aspects such as adult to child ratio and the child care providers' training also carry weight in determining quality child care.

The importance of small group size is reflected in the study by Barros (2016) where higher numbers of child care providers within a larger group size classroom will not give the same positive effect on good interactions between the child care providers and infants, when compared to a small size group classroom with lesser care providers.

Nevertheless, there are studies that show that group size brings no significance to quality child care. According to meta-analysis of the United States settings of early

childcare done in 2017 (Perlman, 2017), there are two experimental studies on group size which are done in 1979 and 1980's. Other studies have been on observational studies studying whether class size and ratio predict the academic, language and social learning of four-year-old children. The findings show no consistent result to indicate that these structural features predict children's development.

Another recent study, using the data from the findings of Environment Rating Scales (ERS) child care quality that has been taken from 72 studies involving 23 countries from five international geographic regions, has also produced mixed findings with regard to relation of adult to child ratio and group size to process quality (Vermeer et al., 2016). Group size was found not to affect the process quality while higher process quality was recorded when adult to child ratio is lower.

On top of that, cross-country studies conducted by Cryer et al. (1999) found different results in different countries. In addition, an overall evaluation of process quality in Spain has revealed that group size is not significant in producing process quality but the result is different in Germany.

It is worthwhile to note that the findings illustrate that only very low ratio and very small group size will affect children's growth but the size of relationship is very small (Perlman, 2017). Group size moreover shows no consistent result in showing that the smaller group size has achieved a greater impact to the children. Thus, depending on the regulation of group size alone would not determine that the quality of child care shall be well-delivered.

It is important to note that from this meta-analysis, the results show that there are no significant outcomes on the children when the ratio is above 7.5:1 and when the group size is of 15 children and above. This sum up that only very small group size

will bring a significant effect. The conclusion is that a suitable group size should be below 20 children.

Therefore, the effect of smaller group size towards the quality of early childhood and care is rather small and it is usually coupled with other elements especially adult to child ratio. Apart from the inability to 'single out' the effect of group size alone without associating it with other factors, the group size research always involves variety, ranges of age of children or age mixing. Nevertheless, the positive impact though small in size may not be denied especially on process quality. This is in terms of the interactive relationship between the children and the child care provider and the healthy communication between staff and parents (Taguma et al., 2012a).

In addition, younger children appear to receive more benefits from the warmer response and more interactive relationship provided by the child care provider to a smaller group. In addition, the benefit can also be magnified when smaller group size may improve the relationship between staffs (UNITAR International University, 2017). However, the benefit in terms of education is little. Therefore, it is suggested that other elements may be given a better focus such as the element of professional development and the trainings of child care providers.

However, this does not mean that group size is not important and should not be regulated at all. From previous analysis of adult to child ratio, it is proposed that the current regulation in Malaysia of adult to child ratio is satisfactory and thus need not be lowered any further. It is therefore submitted that group size, although the significant impact may only be traced when it is of a very small size, group size should be given attention to be regulated properly when the existing provisions on

ratio has been properly legislated. This is because, when there are stricter regulations on ratios, there may be a tendency to group the children in larger groups (Munton et al., 2002) which consequently affect the interactions between the children and the child care providers and the children. More so if the children are still very young such as infants aged below 12 months. Thus, notwithstanding the dependency of this feature to other aspects, the importance of group size is asserted in many studies and should not be left out in analysing the quality of child care (Whiteford, 2015).

Taking the United States as an example, although not many states set standards for ratios and maximum group sizes, Pennsylvania for instance set that for nine months old children the maximum group size is eight for the ratio of 1:4. Meanwhile, for 19 months old one care giver may look after five children for a maximum group size of ten, and the ratio for three years old is 1:6 for a maximum group size of 20 (Munton et al., 2002).

As far as Malaysia is concerned, CCCA 1984 and CCCR 2012 are silent on the requirement of group size in child care centres. Since Malaysia has not included the regulation about group size, should this structural feature be included in order to foster warm interaction between the children with the care providers, especially for infants below 12 months? This study proposes for group size to be included to avoid children been grouped in large groups especially when the adult to child ratio is set at a low ratio. A revision needs to be made in order to balance between legislating regulation which can be adhered by the child care operators and at the same time will not jeopardize the development of the children. As Malaysia does not legislate on group size, these findings on group size are worth considering, being included in the regulation.

4.4 Legal Requirements on Education and Training of Staff

Qualifications of child care providers mean the skills and knowledge that they possess while education means the formal education that they receive such as certificate, diploma or degree or even high school certificate such as '*Sijil Pelajaran Malaysia*' (SPM) . Meanwhile, professional development is a term used to describe continuous developmental training or 'in-service training' that the child care providers undergo while working in the child care centres (Taguma et al., 2012a). This in-service training is meant to be a process of continuous skill and knowledge development, apart from pre-service training. Pre-service training normally refers to compulsory courses that are needed to be attended by the child care providers in order to be recognised as registered child care providers. For instance, in Malaysia the required pre-service training is the PERMATA Early Childcare Course.

It is claimed that it is quite challenging for countries like Malaysia which has a split system in early childhood and care sector to ensure professionalism of child care providers (Taguma et al., 2012a). This is because countries with an integrated system have a smoother process that can be arranged in ensuring professionalism of the child care provider's profession. The requirement in an integrated system shall ensure continuity in professional development regardless of the type of early childhood education and care settings that they are working in either TASKA or TADIKA. As a result, there is an uninterrupted chain in the children's development.

As far as qualification is concerned, there is no requirement in the CCCA 1984 or CCCR 2012 on the required education level of the operator, manager, supervisor or even child care provider. However, in CCCR 2012, there are requirements for the

people who are involved in child care centres i.e. the operator and registered child care providers to be above 18 years old and have passed the PERMATA Early Child Care and Education Course.

Since August 1986, to become a registered child care provider he or she has to undergo a 120-hour of basic childcare course known as Kursus Asuhan Kanak-Kanak (KAAK). The first batch of this course has made a significant move through their initiative to set up the Association of Registered Childcare Malaysia (ARCPM) or PPBM. However, from January 1st 2013, Kursus Asuhan PERMATA has replaced KAAK. Passing this course is compulsory not just for child care providers, but also for the operator of the child care centre. The qualifications of a child care provider and registered child care provider is listed in Regulation 14 (1) which states that, *'A registered child care provider shall be a person who-(a) is a Malaysian citizen; (b) is eighteen years of age and above; (c) has passed the PERMATA Early Child Care and Education Course; and (d) is registered as a registered child care provider under regulation 16'*.

Therefore, it has been specifically mentioned in Regulation 14 of CCCR 2012 that in order to qualify to be a registered child care provider, he or she must be a Malaysian aged 18 and above, has passed PERMATA course and has fulfilled the condition of registration of a child care provider under Regulation 16. Amongst the condition is he or she must be fit in terms of age, health and qualification. Besides that, there must not be any record of conviction of any offences relating to moral turpitude, sexual wrongdoings or abuse cases.

Although this basic requirement is clearly stated in the Regulations, it appears that only two out of ten child care providers have passed this course and possess the

certificate of KAAK of PERMATA child care course (Lydia et al., 2014). It is further commented that, from the analysis made, an extensive percentage of workforces involve in early childhood in Malaysia are those who are inexperienced young workers with no professional qualification. Therefore, this raise doubts as to the standard of quality of the service of the child care providers especially in terms of professionalism and teaching and the learning process.

Studies have found that staff with a bachelor degree delivers the most interactive teaching (Taguma et al., 2012a). However, this study has been conducted in pre-school settings. A study call Effective Provision of Pre-School Education (EPPE) in the United Kingdom has also shown that staff equipped with higher education, leadership skills, and trainings are associated with high quality early childhood settings. Besides that, when child care providers have minimal qualification, it will result in negative outcome for the children especially in terms of their social skills with peers, to the extent that resulting to anti-social behaviour (OECD, 2012b). In addition, the risk of physical harm can also be reduced when child care providers has proper knowledge and skills on how to handle the children in risky situations. They may have detected and predicted unwanted incidents from worsening by ascertaining the symptoms and signs of the illnesses or injuries (Lapp Payne, 2011).

Thus, multiple literatures affirm the importance of the training and education of child minders in determining the quality of child care settings (Munton et al., 2002). An overall evaluation of child care quality shows significant association between quality and formal education of child care providers (Sílvia Barros et al., 2016; Cryer et al., 1999; Phillipsen et al., 1997). It is asserted that a stimulating,

warm and supportive child care provider may be found among those who have undergone formal education and or specialised training (Cryer et al., 1999).

In another research involving infant child care quality in Portugal, one of the aims of this research is to locate the structural features that should be targeted, to be improvised by policy makers in order to improve the process quality of ECCE sector (Sílvia Barros et al., 2016). Portugal is claimed to have weak regulations. Therefore there is a need to assess which structural indicators need to be focused on in order to improve the qualities. One proof to show that the Portuguese legislation is not strong is that it sets high ratios and group size by allowing 10 infants in a class with an adult to child ratio of 1:5. Besides that, there is no qualification requirement for specific education in ECCE for Portugal child care providers and a primary school qualification can be accepted. It is reported in this study that 60 percent of the centres has primary schooled child care providers, with a basic education and who have attended 9 years of schooling. In Malaysia, it is equivalent to the '*Penilaian Menengah Rendah*' (PMR) or PT3 qualification. The result from this study shows that the formal education of a child care provider is important in ensuring higher levels of quality especially in two domains that are selected i.e. the relationship between children and staff and also the use of space and material.

It is important to note that, in terms of trainings, this research submits that by having initial trainings there are positive outcomes between the children and the child care provider when they understand the psychological and physical need of the infants better. In fact, better result can be seen when there is a teacher with formal education floating from one class to class in the staff team. This is because there will be professional development activities amongst the staff in the meetings and discussion

in improving the standard of care in their child care centres; what more when there are more staffs with formal education on ECCE. This study therefore suggests for a more stringent regulation to be enacted on child care providers' qualification and formal initial trainings.

However, mixed findings were reported where there was different effects between teachers who have qualification above bachelor level and those who qualified with a bachelor or below (Slot et al., 2015). Those who have qualifications higher than a bachelor degree tended to perform better compared to those with a bachelor or below. Nevertheless, no difference has been reported when comparing bachelor holders and those below-bachelor holders.

Furthermore, there are studies which show that the education level of the staff does not have any association with the children's development. It was argued in the study that, in order to enhance the quality of care and education in children, the important factor to be given attention to is the professional development programme and staff's supports in a 'shared and sustainable manner' (Taguma et al., 2012a). It is further clarify that qualification alone may not determine positive outcome, but the proficiency of the child care provider to create a better environment for the children through application of pedagogic knowledge and skills will produce better outcomes for the children.

Therefore, going through the studies on the association between the staff's education level and high quality child care settings, it cannot be simplistically concluded that the higher the level of education of the staff the higher quality of child care and education that they provide. It is submitted that besides the level of education, the training process which is known as professional development is far

more important in ensuring that child care providers are equipped with reasonable skills and knowledge in protecting and educating the children in child care centres.

4.4.1 Towards Better Professionalism of Child Care Providers

In Australia, with regard to the level of education, basically child care providers are required to have Certificate III level education and care qualification (Ackerman, 2017). Specifically, for centre-based child care centres, 50 percent of the educators must have a diploma or must be actively in the process of acquiring a diploma level education and care qualification. As stated, the other 50 percent must have Certificate III level education and care qualification or are actively working towards achieving this qualification. This practise is a very good example of not burdening the operators by making it compulsory for all child care providers to have high qualifications. Instead, a considerable proportion of child care providers who have proper qualifications shall be a role model in teaching others through the sharing of knowledge and skills. Notably, Malaysia only requires a high school qualification; the same requirement can be seen in 40 states in the US where the requirement is for a high school diploma or lower.

It is also interesting to note that, a more preferable way to ensure that children get care and education from well-qualified staff is by requiring staffs with higher education to work together with colleagues who have lower educational level. A study has found that the working style and method of the qualified staff may influence the other staffs positively when they work as a team (Taguma et al., 2012a).

It is worthwhile to note that in terms of training, both Australia and Singapore require the child care providers to have first aid qualification. This illustrates the

seriousness of the governments to ensure health and safety of the children and as a precaution in handling emergency cases to provide higher protection for the children.

In the United States, the elements that are being highlighted in the licensing regulations are first pre-hire qualifications, and second post-hire initial training and annual training. The initial training consists of trainings on health and safety of the children, how to deal with emergency cases, regulations on licensing and child abuse reporting. Besides pre-service training, almost all the states in the USA have requirements for annual training ranging from 11 hours or less to more than 18 hours.

The pre-service education received by child care providers at the beginning of the service may fade out if there is no revision made through time. Moreover, in today's fast-paced world it is necessary for them to equip themselves with up-to-date relevant information and knowledge about children, related technologies, and even updated laws and regulations. The programme and life style challenges face by children today are not the same as those of their parents let alone that of the child care providers. Therefore, it is proposed that in-service trainings or annual trainings should be introduced in Malaysia in order to upgrade the qualification and skills of child care providers.

For instance, to detach children from their gadgets there are skills that need to be learned by the child providers; the discipline for screen time allowance should be done through skills and right techniques. Gadgets and screen time might not have been an issue 10 or 20 years ago, but it is today. Thus, this is a crucial skill that needs to be acquired and developed by child care providers. Therefore, in-service training which is done periodically can be a medium to polish the skills and knowledge of child care

providers so that they will deliver care and education according to current development.

In-service training is not just confined to workshops and conferences. Other mediums can also be called as trainings such as “field-based consultation training, supervised practices and mentoring”. What is important is that the knowledge can be practised and applied in their work and help them to positively develop the children. In addition, it must not be a one off programme but rather a series of trainings (Taguma et al., 2012a). Therefore, this will help to assist the child care providers to keep upgrading their knowledge and skills. The difference can be seen with those who attend and receive trainings from their colleagues who are just content with the initial or pre-service course (Burchinal, Howes, & Kontos, 2002). Nevertheless, there is an issue pertaining to the kind of trainings that can provide the biggest impact as different staff may lack different skills and knowledge (Taguma et al., 2012a).

In addition, it appears that for infants and toddlers the stronger predictor of quality is the practical training received by the child care providers as compared to the education level that they have (Taguma et al., 2012a). Education level is a more important factor for pre-school, a child who is in the Malaysian context is ready for the TADIKA.

It is suggested by the recent study made by UNITAR team for SWD (2017) that there is a need for trainings for operators and child care providers according to their own job scopes and the skills needed. The operators need management and administrative trainings. This is somehow reflected in the requirements made by Singapore’s and Australia’s provision that is in applying for licensing, the applicant should have management capability.

In addition, for child providers there is a need for continuous trainings, or professional development programme. The training or courses should not stop short by just attending PERMATA Course once in a lifetime. These trainings are important for them to obtain information on knowledge especially on the development process of a child. This is far more important when the child care provider does not have formal education on early childhood, and for those who are qualified with a minimum SPM qualification.

The worst scenario may be identified when the child care providers do not even attend the PERMATA Early Child and Education Course. The trick is that the child care provider will work in one centre for a short period of time and moved to other centres before the time limit is over. This is because in the regulations there is a gap time given for the child care provider to be registered and to undergo the course. The employer on the other hand will abuse the power by firing the employees within the probation time as they try to escape from paying the minimum wage to their employees. Therefore, there is a need for effective legal requirements to ensure that all child care providers should undergo trainings not just before the service but also during services through professional development programmes. This is because as the position in Malaysia is concerned, according to a study analysing the workforce in child care sector in Malaysia, it is remarked that large proportion of the child care providers are young workers with limited experiences and do not have professional qualification on child care matters (Foong et al., 2018).

In OECD Starting Strong 2017, it is reported that the main aim is to have a good care provider taking care of the children while ensuring that they develop in accordance to their age (OECD, 2017). Therefore, as care providers play a big role in

shaping the settings of child care, focus should be made to develop care providers who are willing to work full heartedly and this will depend on several factors. Job satisfaction will result a better delivery of care and learning environment for the children. Amongst the factors in ensuring job satisfaction and retention amongst care providers are statutory working hours, salary level and also lower adult to child ratio. Statutory contact hours partly determine the work loads of a teacher. A less stressful teacher will give greater service to the children which will foster warmer and more responsive interactions. Therefore, statutory working hours also relate to adult to child ratio in ensuring quality in child care settings.

Moreover, the discussion on child care providers' trainings and education always connects to the cost of child care since their salaries increase in accordance to their qualifications, skills and the knowledge that they have. Wages given to the child care providers may contribute to the process quality of child care settings in improving warmer interaction between child care providers and children. In studies conducted in the United States, the results indicate that wages may be the single best predictor of the quality of child care as compared to adult to child ratio (Phillipsen et al., 1997).

Higher qualified teachers may receive higher wages. However, other factors may also contribute to higher wages for teachers. High possibility of turnover may also be a factor. Therefore, the ideal solution is for the child care to hire well educated teachers who will not quit their jobs easily. Higher wages therefore may be a method in enticing highly qualified and committed teachers. It is proposed by Phillipsen et al. (1997) for the child care centres to rearrange the child care budget instead of increasing the budget. This could be done by increasing the portion of the teachers'

salary and decreasing budgets on other sectors (Phillips et al., 2000; Vandell & Wolfe, 2000). The commitment of child care providers would be ensured if their needs and benefits are satisfied. They will in return perform well and be committed (Sulaiman et al., 2013). It is contended that, through a research conducted in Nilai, Negeri Sembilan which interviews child care providers, they are more committed when they experience healthy relationship and communications, reciprocal attention and tolerance and worthy experiences while discharging their duties (Azizan et al., 2016). Committed child care providers would be more supportive in ensuring good developmental growth of the children.

Thus, in analysing the features of education and trainings of child care providers, what is important is their skills and knowledge of child care. Though education is also crucial but to increase the qualification of child care providers is to make drastic changes, and this may increase the burden of child care operators and the cost of operation. There is a need to hire higher paid workers. Thus, the more important enhancement that should be focused on is the trainings and professional development of child care providers. Besides pre-service trainings, in-service trainings and annual trainings should be applied in Malaysian child care settings.

4.5 Concluding Remarks

Looking at extensive research done, it is clear that ratios and group size are important in ensuring high quality child care settings. However, the issue is the degree of what the relationship ratios and the group sizes have on the process quality and outcome of the children. Ratios and group size are suggested to be one of the predictors but not the most significant ones.

Besides that, ratios and group size cannot stand alone to give high quality impact towards children's development, and according to recent studies other factors which are more cost effective should be given more attention. So 'smaller is not always better'. This is why there is recommendation made by Munton et al. (2002) in the recommendation for UK National Care Standards to make adult to child ratio contingent to the qualification of the child care providers. This means that, in meeting the ratios stipulated in the regulations, the qualification of the child care providers should also be taken into consideration.

Looking at Malaysian laws and regulations, the ratios stipulated in the regulations somehow meet the recommended benchmark that has been set by international bodies. However, the issue is the implementation since many still does not register as they cannot afford the ratios stipulated due to various reasons. One of the reasons is the cost of hiring more child care providers. Since ratios are not the most important predictor, should the focus be other structural features such as the provider's qualification? Or should the regulations on the ratio be relaxed to encourage more registration on the part of the child care centres' operators by having less qualified child care providers in a centre instead of high in numbers but low qualification of child care providers? Thus, as far as ratio is concerned, it is not necessary to lower the ratio stipulated currently in the Child Care Regulations 2012. This is to encourage more registration on the part of the operators to register their centres so that proper monitor of the quality can be done. As the effect of ratio towards child outcome according to studies is also inconsistent and only result to modest result, setting very low adult to child ratio would not be cost effective. With regard to group size, since the Act and Regulations are silent on the provision of group

size, it is suggested that Malaysia includes group size in the regulations. Furthermore, the specific adult to child ratios should be linked to the recommended group sizes.

With regard to staff's education and training, a study has suggested that the child care provider's qualification is a stronger predictor of quality rather than group size and it is claimed that this is the best indicator of quality assurance in child care settings (Whiteford, 2015). The announcement by the government to make it compulsory for pre-school teachers to have at least a diploma qualification has received various responds from the stakeholders. This is with regard to pre-schools. It is expected that for child care centres, this suggestion would be prone to rejection as this will bring difficulties especially on the part of the cost to the operators.

It is recommended that in long term planning, there is a need to put an aim to upgrade the profession of child care providers towards professionalism. As has been mentioned above, researchers prove that there are many benefits not just to the children, but to the working environment when child care providers possess higher levels of education and qualification. Nevertheless, this effort should be materialised through a process and gradually. Imposing a rigid regulation on this feature shall invite more refusals of registrations on behalf of the operators. Eventually, the aim to improve the quality of child care centres through the legislative limb may not be fruitful or even lowers the existing quality as there would be more child care centres operating without license in the absence of proper monitoring from the authorities.

Moreover, for younger children in child care centres, skills and knowledge on how to handle young vulnerable infants and toddlers are always the priority. Therefore, apart from education level, what is more important is to arrange continuous trainings for child care providers. It is inadequate to just rely on the pre-service or the

basic course of PERMATA Early Childcare and Education Course alone. Annual trainings as practised by most of the states in the US may be implemented in Malaysia. Besides that, the difficulties in terms of cost and logistics may be solved by conducting more online courses which may reduce the budgets and the hustle to go somewhere else for courses, which necessitates them to leave their job for a while. Nevertheless, field consultation is still needed to be done through four eyes meeting as there is a need to allocate the problems and issues that are faced in reality by child care providers.

Although high cost is a crucial matter that needs to be considered, the cost of not having quality early childhood and care is even higher when this cost has to be paid in subsequent stages of learning and education (Lydia et al., 2014). The price to be paid may be higher in remedying the negative consequences of not having better quality in child care settings. The significant effects of quality early child care on children, not just in terms of their short term growth but also the lasting effects to the family and society have been the eye opener for necessary attention to be given to early childhood care and education. This paradigm shift should also impact on how child care providers are perceived. Their duty should be seen as beyond providing child minding service, but also to educate the children in ensuring that they become well-developed individuals.