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**THE FACTORS INFLUENCE QUALITY ASSURANCE LEVEL AMONG
CHILDCARE EMPLOYEES IN SELANGOR**



BY
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Universiti Utara Malaysia

Thesis submitted to
Othman Yeop Abdullah Graduate School of Business,
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Master of Sciences (Management)



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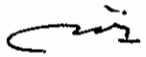
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ABSTRACT

The role of caregiver or childcare employee is important to deliver excellent quality childcare in developing future leader. In order to develop future generation, childcare centres should enhance and stimulate the practice of quality assurance among employees. The purpose of this study is to investigate factors that influence quality assurance among childcare employees in Selangor. Precisely, the objectives of the study is to determine, identify and examine the relationship between factors (physical facilities, employee commitment, communication, and employee competencies) and quality assurance. A random sampling technique was used to select respondents from the registered childcare centers in Selangor, Malaysia. The study used quantitative approach through structured questionnaires developed from previous research. A total of 450 survey questionnaires were distributed, only 379 questionnaires were usable for analysis. The study used SPSS 22.0 to analyze the data. Methodologies such as Pearson Correlation and Multiple Regression Analysis were conducted in analyzing the data. Overall, the findings revealed that quality assurance had positive relationship and significant with physical facilities, employee commitment, communication and employee competencies. This study concluded with discussions, limitation and suggestions for future research.

Keywords: Quality Assurance, childcare employee, employee competencies, employee commitment and communication

ABSTRAK

Peranan pengasuh atau penjaga kanak-kanak adalah penting dalam memberi kualiti penjagaan yang baik bagi melahirkan pemimpin masa depan. Untuk membangunkan generasi akan datang, pusat penjagaan kanak-kanak perlu meningkatkan dan merangsang amalan jaminan kualiti di kalangan pekerja. Tujuan kajian ini adalah untuk mengkaji faktor-faktor yang mempengaruhi jaminan kualiti di kalangan pekerja penjagaan kanak-kanak di Selangor. Setepatnya, objektif kajian ini adalah untuk menentukan, mengenalpasti dan mengkaji hubungan antara faktor-faktor (kemudahan fizikal, komitmen pekerja, komunikasi, dan kecekapan pekerja) dan jaminan kualiti. Teknik pensampelan rawak digunakan untuk memilih responden dari pusat penjagaan anak berdaftar di Selangor, Malaysia. Kajian ini menggunakan pendekatan kuantitatif melalui soal selidik berstruktur yang dibangunkan dari kajian terdahulu. Sebanyak 450 soal selidik kaji selidik diedarkan, hanya 379 soal selidik yang boleh digunakan untuk analisis. Kajian ini menggunakan SPSS 22.0 untuk menganalisis data. Kaedah seperti Korelasi Pearson dan Analisis Regresi Berganda telah dijalankan dalam menganalisis data. Secara keseluruhan, penemuan menunjukkan bahawa jaminan kualiti mempunyai hubungan positif dan signifikan dengan kemudahan fizikal, komitmen pekerja, komunikasi dan kecekapan pekerja. Kajian ini membuat kesimpulan dengan perbincangan, batasan dan cadangan untuk penyelidikan masa depan.

Kata Kunci: Kualiti ansuran, kakitangan taska, komunikasi, komitmen pekerja, dan kecekapan pekerja

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LIST OF ABBREVIATIONS

ARCPM	Association of Registered Childcare Providers Malaysia
DV	Dependent Variable
ECCD	Early Childhood Care Education
GMP	Good Manufacturing Practice
HACCP	Hazard Analysis Critical Control Point
HRM	Human Resource Management
IC	Internal Communication
IV	Independent Variable
JKM	Jabatan Kebajikan Masyarakat
KMO	Kaiser-Meyer-Olkin
OCQ	Organizational Commitment Questionnaires
PF	Physical Facilities
RCM	Reliability Centered Maintenance
SME	Small Medium Enterprise
SPSS	Statistical Package for Social Science
TPM	Total Productive Maintenance
TQM	Total Quality Management
QA	Quality Assurance
QIAS	Quality Improvement Accreditation System
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

1.0 Introduction

This chapter presents an overview factors influence quality assurance. This chapters consists of nine parts which are (1) introduction of the study, (2) background of the study, (3) problem statements, (4) research questions, (5) research objectives, (6) variables of the study, (7) theoretical framework, (8) hypothesis, (9) significance of the study and (10) chapter conclusion.

1.1 Background of the Study

Nowadays, childcare centres have been a growing trend in Malaysia. This is supported by the growing number of childcare centers in Malaysia. This can be explained by the report from Ministry of Woman, Family and Community shows that growing number of childcare centres by the year 2007 to 2016 from 2176 to 4272 respectively. (Heng Keng Chiam, 2008; JKM, 2018). In addition, the growing childcare center in Malaysia is to meet the growing number of pre-school children in the country. This is because “registered centres in the country were found to be insufficient to meet the demand to place children” said by Datuk Seri Rohani Abdul Karim. (“MalayMail Online,” 2014).

Childcare centres not only bring convenience to working parents but the same times making contribution to the labour force and economy of the country. This can be explained by more job opportunity for women force in childcare industry. On the other hand, the number of women entrepreneurs increased by years due to the support of government and organizations. According to Ming Yen Teoh & Choy Chong (2014), woman entrepreneurship can be strengthen by having childcare subsidies for childcare

service in Malaysia. In the meantime, it does contribute to the country economic as the growing number of the childcare centres with the support of government. The government does offer education course to standardize the education of the childcare centres such as PERMATA nursing course and so on.

In addition, based on the government policies, more Malaysian women earn higher wages and assume key decision-making positions. This can be explained by the government has been pressing for taska or childcare centres at workplaces to help Malaysia achieve its goal of women accounting for 59 per cent of the workforce, with new 226 taska in public and private centres respectively. (“Malay Mail Online”, 2018)

Although childcare centres are increasing from years to years, however, there are issues caused dreadful incidents like negligence to the extent of causing injury, death, sexual abuse and more towards children at the centres, low wages, and so on. Besides that, in reality, legal childcare centres had are overburdened of children by the ratio of 1:20, said by Association of Registered Childcare Providers Malaysia (ARCPM) president P.H. Wong. (“The Star Online”, 2014).

Other than that, based on the legal law in Malaysia, there is no specific labour laws to ensure that all employers provide childcare centres or nursery for working mothers. This is important to provide a childcare centre at workplace so that the working mother can focus to their work as the safety of childcare centre secured by the company. Therefore, government should amend labour laws to ensure that all employers provide childcare centres or nurseries for working mothers. (Arukesamy, 2018).

Hence, this study attempted to focus quality assurance in order to make a contribution in the childcare industry. The main purpose of encouraging quality

assurance among employees is to improve quality level and satisfaction of parents. Therefore, this study will examine the factors influencing quality assurance level in the childcare industry.

In general, childcare center is the place that providing childcare services like education and care for young children in the aid to help working parents. In Malaysia, the population of children under 5 years is 8.2 percent which is 2.7 million out of 32 million of total population. According to Department of Statistics (2017), in the year 2016, the number of children in pre-school had achieved an increase of 2,171 persons from 198,574 persons to 200,745 persons as compared to year 2015. This shows that the number of children is growing from years and need of education to guide the future generation will be a need. Therefore, an investment in early childhood education is one of the good tactics in developing human capital and economic growth for the country.

In Malaysia, childcare centres fall into four categories such as government-owned childcare centres, workplace childcare centres, institution-based childcare centres, and home-based childcare centres. (“Guide for Starting”, 2018). Government-owned childcare centres has been setting up to benefit low-income families with quality childcare services. Second, workplace childcare centres is where the private industry to provide childcare facilities for their employee and in the same times, tax incentives and exemption given for those company that set up workplace childcare centres. Next, institution-based childcare centres normally having 10 children and established by private sector. Lastly, home-based childcare centres with less than 10 children. Besides, childcare centres that take up to ten or more children are required to register their centres with Department of Social Welfare under the Childcare Centre Act 1984. (Heng Keng Chiam, 2008). In this study, the data collected is mainly focus

on government-owned childcare centres, institution based childcare centres and home-based childcare centres.

As for the regulation of childcare, according to Pheng (2007), childcare service is regulated by Child Protection Act, Childcare Centre Act 1984 for children development. The Childcare Centre Act 1984 is to promise the quality of the centres. The Childcare Centre Act and Department of Social Welfare also providing standard and guidelines for management, training and program for childcare provider to ensure the quality. There are two courses such as Basic Childcare Course that mandated by law for every childcare centre in Malaysia while Introductory Course for home-based childcare centres. (Sulaiman, Othman, Perumal, & Hussin, 2013).

The benefit of childcare centres can be explained by few studies on childcare. According to the research from Havnes & Mogstad (2011), result showed that childcare centre that subsidized by government can bring better effect on child education and in the same times, it bring up the labor force in market. Besides, study from Adamson (2008) proved that loving, consistent, secure, and stimulating relationships with care provider in childcare centre in the early life are essential for child's development. In addition, based on a research from Canada show that childcare arrangement and preschool development influence child environment. The result shows that childcare centre arrangement significantly influence the child development.(To, Cadarette, & Liu, 2000). Not only this, according to Belsky (2006) having a quality childcare centre predict on child development such as cognitive skill and so on.

There are many studies and research shows that quality of childcare centre are important. It is generally recognized that high quality childcare improve children's cognitive and social development. This can be supported by a research from NICHD

Early Childcare Research Network (2006) that explained that higher standard of quality childcare was connected to advanced cognitive, language, academic result and better social as compare to the peers. This is further supported by a study from Vandell, Belsky, Burchinal, Steinberg, & Vandergrift (2010), stated that higher quality early childcare care predicted higher cognitive-academic achievement and less externalizing behavior for the youth report. This explained the importance of quality childcare that will help in shaping the future of the children. In addition, according to Love et al. (2003), the research shows that quality is an important factor that brings influence on children's development with amount time of care. Thus, government and childcare provider should be concerned the importance of implementing better quality in developing future generation.

1.2 Problem Statement

There are growing interest in the studies of childcare quality assurance by many researchers. (Cárcamo, Vermeer, De la Harpe, van der Veer, & van IJzendoorn, 2014; Hanafi, 2015; Simon, Owen, & Hollingworth, 2016; Tee, 2005). Therefore, this study is designed to cover four variables, which include physical facilities, employee commitment, employee competencies, and communication.

Nowadays, there are many news and article related to the incident that happened in many childcare centre in Malaysia. This is due to negligence of childcare employee that leads to death of the child. Besides, there are cases like abuse happened in childcare centre due to lack of satisfaction and commitment from employee. This can explained when there are low paid salary and high turnover rate of employee in childcare centre. Thus, all this is happened due to there are lack of quality in the centre.

In general, quality assurance is important for childcare centres as it provide a better quality service for children from childcare employee. Normally, with the technology advancement, people tend to get information easily. Same goes to parent, they know the important of childcare services that bring benefit to their children development. Therefore, parents will tend to demand of better quality for the childcare services provided by the centres. However, according to Heng Keng Chiam (2008), the current quality of childcare still maintain at the same situation as there doesn't have any changes on the regulation. This can be explained that parent tend to be satisfied if their children in custodian care. In addition, government doesn't make any amendment toward the quality of childcare unless administrative part. The government still using Basic Childcare training course that developed on 1980s as the qualification for childcaregiver. This can be supported by Pheng (2007) that sometimes the registered centres will have the questions of quality. Although there is a suggestion of quality improvement for childcare centre, research on this aspect is still lacking.

Besides, physical facilities is one of the important element as it measure the quality assurance of childcare. Although many research in early childhood skip physical facilities as contributor to quality, many research shows that there are relationship between school facilities and student achievement. Research from Dogan, Larson, Gillman, & Sussman (2006) stated that an excellent physical environment will support the application of a high quality program for children. According to the study from J.S. Gubbels (2014), physical activity is important as it part of physical facilities for children to establish healthy lifestyle. However, physical facilities might bring issue such as health and safety issue of children when childcare employee facilitate children physical activity. This can be explained by Gubbels, Van Kann, & Jansen (2012) that not all of the physical facilities are positive significant with children

actively levels. For instance, swing equipment and portable slide show negative impact with outdoor activity. In addition, according to Musa & Ahmad@Baharum (2012), the findings show that infrastructural development and physical environment of higher institutions are significant with quality assurance. Even though physical activity, facilities and environment have been research in education field, however, there are still lack of studies in childcare settings as mostly in study in secondary school and higher education level.

Employee commitment is relatively important as contributing to quality of childcare employee. Although there are study that related with employee commitment with childcare, however, this study is still lacking in Malaysia. This can be further supported by the recent study from various industry. For instance, according to human resource management and commitment in child day care from Boselie & Veld (2012) show the result where higher performance practice such as communication and performance management contribute to organizational commitment. Ahmad, Iqbal, Javed, & Hamad (2014) conducted study on bank employee from 10 banks; Landry & Vandenberghe (2012) conducted research on 300 employee and supervisors from health organization; Albdour & Altarawneh (2014) examine the relationship of employee engagement and organizational commitment among 336 frontline bank employees in Jordan. In addition, research from Harwiki (2016) involved 40 managers and employees of Women Cooperatives in East Java to test the relationship of servant leadership and organizational commitment. Hence, it is important to examine the relationship between employee commitment and quality childcare centre in Malaysia.

A successful childcare must have an excellent communication within it organization. However, there is a limited research of communication in childcare. One of the study from Reedy & McGrath (2010) examine the challenges between staff and

parent communication in childcare on process and way the messages conveyed, received and provided. Many research of the communication is focus on internal communication that mostly focus on the business organization. For instance, Ruck & Welch (2012) emphasize that internal communication on employee communication for organizational success; Welch (2011) conducted research regarding role of communication in employee engagement; Hayase (2009) also conducted a study that proven internal communication has positive relationship with employee engagement. While other research from Men (2014) focus on study the relationship between type of leadership and effectiveness of communication channel of 400 employees from medium and large organizations in United States. Based on the research up to date, there are still lack of studies that relate communication and quality of childcare in Malaysia. Therefore, it is a need to identify the relationship between communication and quality of childcare employee.

Nowadays, childcare centre in Malaysia likely to compete with their competitor among the district or location area. The childcare centre need to have their competitive advantage to gain advantage and sustain business as compared to the others. One of most important competitive advantage will be employee competencies. Generally, quality childcare providers is important to provide quality childcare service. (Heng Keng Chiam, 2008). However, in Malaysia, for the registered childcare centre, the caretaker or employee only go through 17-day training course to get JKM certificate. (Teo, C., 2012). Since 2012, all nurseries and pre-school employees are required to attend the Permata (Early Childhood Care and Education) course which is designed to ensure that centres meet with every health and safety requirement. ("Malaysian Digest", 2013). All this course is the basic requirement for the childcare centre according to government policies and legislation.

Generally, employee competencies defined vary in different industry. From the business perspective, competencies are categorized into few category such as intellectual, interpersonal, and adaptability and result orientation. (Cardy & Selvarajan, 2006). Besides, according to research from Drake (1994) shows the study regarding relationship competencies in child welfare services through the dimension of social work practice, training and education as competencies. On the other hand, study from Van Leeuwen & Cusveller (2004) about nursing competencies for spiritual care shows six competencies such as handling beliefs, addressing subject, collect information, discussion and planning, providing and evaluating, and, integrating into policy. Until now, there is still lack of studies on employee competencies among childcare centres. Therefore, the research of employee competencies on quality assurance among childcare employee in Malaysia is believed to be important.

Based on the justification, there is a need to carry out this study to fill the gap in literature on factors that influence quality assurance. Precisely, this research tend to determine the influence of physical facilities, employee commitment, employee competencies and communication towards quality assurance.

1.3 Research Questions

The research has been conducted to answer questions as stated below:

1. Is there any relationship between Physical Facilities and Quality Assurance among childcare employees in Selangor?
2. Is there any relationship between Employee Commitment and Quality Assurance among childcare employees in Selangor?
3. Is there any relationship between Communication and Quality Assurance among childcare employees in Selangor?

4. Is there any relationship between Employee Competencies and Quality Assurance among childcare employees in Selangor?

1.4 Research Objectives

1.4.1 Main Objectives

This study aims to examine the factors influence quality assurance among childcare employees' in Selangor, Malaysia. It intends to examine the relationship between independent variables (physical facilities, employees' commitment, communication and employees' competencies) and the dependent variable (quality assurance).

1.4.2 Specific Objectives

The specific objectives of this study are as follows:

1. To investigate the relationship between Physical Facilities and Quality Assurance among childcare employees in Selangor.
2. To identify the relationship between Employee Commitment and Quality Assurance among childcare employees in Selangor.
3. To examine the relationship between Communication and Quality Assurance among childcare employees in Selangor.
4. To examine the relationship between Employee Competencies and Quality Assurance among childcare employees in Selangor.

1.5 Significance of the Study

The current study gives some contribution to the present literature related to the Total Quality Management (TQM) theory by investigating the relationships among quality assurance, physical facilities, employee commitment, employee competencies

and communication. This explained that this study tries to create a foundation for quality assurance level through physical facilities, employee commitment, employee competencies and communication among childcare centres in Selangor. Thus, the significance of the study to theoretical, managerial and policy maker are discussed.

Based on the theoretical perspective, the findings of this study will help to increase the number of empirical findings on quality assurance and the relationship with physical facilities, employee commitment, employee competencies and communication can lead to a better quality perspective of childcare employee among childcare centres in Selangor. This study also adds to better understanding of the total quality management (TQM) which is the main underlying theory used to develop the research framework. In general, Total Quality Management (TQM) tries to advise on the factors such as physical facilities, employee commitment, employee competencies, and communication that when applied, could get the best result of employees.

This research also intend to fill the gaps in quality assurance and physical facilities, employee commitment, employee competencies and communication. It is important to determine all the employee commitment, employee competencies, physical facilities and communication among the childcare employee in Selangor. However, based on previous studies, there is lacked of studies have done the relationship among quality assurance, physical facilities, employee commitment, employee competencies and communication. To date, only a few studies have been conducted in the relationships between quality assurance and physical facilities, employee commitment, employee competencies and communication. For example, a study conducted by Musa & Ahmad@Baharum (2012) among higher education in Malaysia. Moreover, the study was conducted in university school setting and not in childcare setting as this study. In addition, the research investigated only the physical

assets and facilities with quality assurance. To distinguish with that study, this research examined the factors such as physical facilities, employee commitment, employee competencies and communication influence quality assurance among childcare employee in Selangor.

From the managerial view, this study offers particular values for practitioners. This is supported by the results of the study which provide benefits to the childcare provider by offering new understanding into the function of quality assurance that contribute to physical facilities, employee commitment, employee competencies and communication and the most important factor is to provide high service quality to the customers. Besides, implementation of quality assurance which can direct or indirectly create a higher level of employee commitment, employee competencies and communication, and better physical facilities and overall toward a better quality among childcare employee in Selangor. Moreover, this study helps to attract parent to change from illegal childcare centres to official childcare centres. The study result shows that as the children being cared by quality childcare centres, parent can satisfied with the service and recommend to their family and friends.

In the policy making perspective, this study provides some insight to developing quality early childhood education and care for children for producing future leaders. Besides, the Department of Social Welfare can provide more courses on childcare employee training that can lead to better quality to childcare centres. According to My, J. G. (2013, June 15) stated that greater quality ECCD program lead to more equal outcomes for children. Therefore, the development of the policies of ECCD program lead to better quality improvement in childcare centres.

1.6 Scope of Study

The research objectives and questions of the study were being investigated based on the data collected from the registered childcare centres in Selangor. Therefore, this study is limited to the data gathered from Selangor only. Although the study was performed in the context of childcare centres in Selangor, it might imply to other contexts not only childcare centres but also business organization as the study examined the factors influence quality assurance among employee. This is because according to the statistics of population in 2016, Selangor is the highest percentage of population with 19.9% in 2016 as compared to other state. (Current Population Estimates, Malaysia, 2014 – 2016). Besides, the incident of the childcare normally happened in news and article regarding the child abuse and child death are located at Selangor. (New Straits Times - Many child abuse cases go unreported; Online, T. S., 2014. Malay Mail. , 2017).

1.7 Definitions of Major Terms in the study

The definitions and descriptions of the main terms used in the current study are discussed below.

1.7.1 Quality Assurance

According to Analytic Quality Glossary by Harvey (2016) defined quality assurance as ‘the series of process, systems and practices within internal or external to accomplish, sustain and improvise quality in organization’. (Williams, 2016)

1.7.2 Employee Commitment

Employee commitment is the comparative strength of an employee’s recognition with association in organization. (Mowday, Porter, & Steers, 1983)

1.7.3 Employee Competencies

Employee competencies are the characteristics or attributes which are obtain by employees such as knowledge, skills, capability and personality that distinguish them from average performers. (Potnuru & Sahoo, 2016)

1.7.4 Communication

Communication is the process of transfer information and usual concept from one person to another one within organization. (Lunenburg, 2010)

1.7.5 Childcare Employee

Childcare employee can be defined as a teacher or nanny who takes care and guide the children from zero to four years of age as daily routine. (Sulaiman et al., 2013).

1.8 Organization of the Dissertation

The introduction chapter consists of the background of childcare centres in Selangor, the problem statement of the study, the research objectives, the research questions, significance and scope of the study, definitions of the terms and the organization of the dissertation. Next, Chapter 2 presents review of the literature. It is consists of introduction, quality assurance, physical facilities, employee commitment, employee competencies, communication, the underpinning theories, gaps in the literature and summary of the chapter. Chapter 3 discusses the research framework, hypotheses development, research design, unit of analysis, sampling design, measurement of variables, questionnaire design, pilot test, data collection method and data analysis strategy. Chapter 4 provides the findings of the data result and Chapter 5 discuss the findings and suggestion for future study.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter provides general views and concepts of the main variables. This section discusses quality assurance, physical facilities, employee commitment, employee competencies and communication.

2.1 Quality Assurance

In general, quality assurance vary depend on the field of the researcher study. The quality assurance of childcare in Malaysia is very limited and there are no measurement available such as QIAS or Infant Environment Rating Scale were built to test or measure the quality in Malaysia. Therefore, the literature of quality assurance give a sight on quality assurance in childcare, other industry such as education, software, medical and evolution studies of quality assurance in Malaysia. The following section explained the definitions and previous studies of quality assurance.

2.1.1 Definitions of Quality Assurance

Quality Assurance has been defined in various article and research. According to Keçetep & Özkan (2014), Quality Assurance defined as the whole process to provide excellent quality which requirement and standard needed such as guarantees product, service or institution to meet the quality level. Besides, referring to Nicholson (2011), Quality Assurance is defined as specific measure that reflect required input and outcome. For instance, staff as input and children learning as outcome. In addition, refer to Amaral & Rosa (2010), Quality assurance in Europe have important procedure such as internal and external evaluation, expert review panel and public reporting. From the medical perspective, quality assurance defined to confirm that diagnostic

tests and results are analyzed and interpreted correctly and action accordingly. (Sturgeon, 2013). In contrast, from the software quality assurance perspective, quality assurance referred as a prepared and standardized design of all action necessary to provide enough assurance that the element accommodate to established technical requirements. (Buckley & Poston, 1984).

According to American Society for Quality (ASQ), quality assurance defined as quality need for product and service will be accomplished if there is planned and systematic activities applied in a quality system. (Project Management Skills, 2015). Moreover, based on the past research from WHO, quality assurance is important as it bring professional, social, and pragmatic motive. ('The principles of quality assurance', 1989).

2.1.2 Past Studies on Quality Assurance

Past empirical studies on quality assurance focus on many perspective such as medical, business, technology, education and so on. Each of industry demonstrate different dimensions and perspective in measuring quality assurance.

There are some research that measured the quality assurance of childcare. For instance, Quality Improvement Accreditation System (QIAS) was first developed by Australia for long day care centre to promote quality childcare in Australia. This can be supported by few research that used QIAS as measurement to measurement the quality of childcare. For instance, research from Rowe (2006) indicate the quality measurement variable for childcare settings. This is further supported by Hanafi (2015) that research conducted using QIAS to identified the key area of quality childcare centres such as staff relationships, partnership with families, programming and evaluation, children experience and learning, protective care, safety, health, nutrition and support quality. All this key area quality of childcare were measured from the

Quality Improvement Accreditation System (QIAS) model to childcare employee. The result shows that there are some key area that require further training, guidance and monitoring to enhance staff development.

Other than that, childcare quality assurance research also being measured through Infant or Toddler Environment Rating Scale. This can be explained by the research from Cárcamo, Vermeer, De la Harpe, van der Veer, & van IJzendoorn (2014) that conducted study to measurement quality at 17 public childcare centres in Chile by using Infant Environment Rating Scale. The result showed that even Chile has a moderate level of childcare quality and their quality didn't affected through the increased of childcare centre in Chile.

From the other perspective, there are research that compare the childcare quality in European countries through the government policy such as group size and staff-child ratio, educational level of childcare takers, inspection of childcare arrangement and so on. ('The quality of childcare services - a comparative view', 2010). This research shows that each of the countries have different care facilities with quality measures and requirements and its make comparison have to measure as the government policy play important for development of the childcare in the countries. According to Waldfogel (2002), childcare studies found that indicators such as smaller group size, higher child ratios, and higher levels of provider training are positively associated with quality (Ruopp et al. 1979; Phillips 1987; Mocan et al. 1995).

Moreover, the quality research that associated with childcare indicated that quality childcare influences children attentiveness and self-regulation at school entry. According to the research from Gialamas et al., (2014) used three dimension such as provider and program characteristics of care, activities in childcare, and caregiver-child relationship to measure the childcare quality. From there, it is identified that

children whose experienced higher-quality relationships were better to regulate their attention and emotions during the school entry.

On the other hand, recent studies such as Simon, Owen, & Hollingworth (2016) show the dimension of the qualifications, pay and working conditions influence British childcare workforce to measure the concept of quality in childcare. The result shows that quality childcare important for government policy and goal while it contradict with the affordability of parent and pay for worker in childcare industry.

In addition, research on quality assurance not only focus on childcare industry but also in higher education field as well. Recently, there are many studies regarding quality assurance in higher education. For instance, research from Cao & Li (2014) study about the quality and quality assurance in Chinese private higher education from three dimension such as academic, administrative and relationship management and quality assurance framework from the role of government, market, and institution. In addition, study by Keçetep & Özkan (2014) also research on the quality assurance in European higher education. The result showed that there is a need of quality assurance as it aims to improve quality and standard to reach the aims and goal of the country. Besides, referring to Yingqiang & Yongjian (2016), the quality assurance of higher education must innovate the changes to quality culture to improve higher education quality. Other than that, there are study of quality assurance practice in Malaysia university education. The research look onto 9 dimensions of quality such as staff development, planning, work process, teamwork, customer priority, performance evaluation, system for learning material, receiving assignment and student records in 3 groups of staff. (Sim & Idrus, 2004).

On the other hand, from the medical quality assurance perspective, according to Sturgeon (2013), Quality assurance is measured through accreditation assessment

such as internal quality control and external quality assessment. Other than that, according to software quality assurance, the study from Buckley & Poston (1984) measured quality assurance through the process such as management, documentation, standards, practice and conventions, review and audits, and tool, techniques and methodologies.

In Malaysia, mostly of all the quality assurance research are focusing in halal food. For instance, research regarding Quality assurance in halal food manufacturing in Malaysia from Hayati, Khairul Anuar, & Khairur Rijal (2008) indicated that halal quality assurance system was based on three zero concept such as zero limit, zero defect and zero limit. (Othman, Shaarani, & Bahron, 2016). The implication of halal assurance system is to make sure the food production are effective and efficient. Another research from Kim-Soon, Chin, & Ahmad (2017) conducted to study quality assurance practice of food manufacturers in Malaysia. The studies used quality assurance practice such as Good Manufacturing Practice (GMP) and HACCP food safety management to identify the quality level of the current practice.

In general, Quality Assurance is important for childcare industry as it aimed to provide and improve the quality level of the childcare so that it can produce better quality standards for the children in childcare centre. Therefore, the literature in this study intend to close the gap between quality assurance and childcare.

Table 2.1

Summary of Past Empirical Research on Quality Assurance

No	Researchers	Dimensions	Findings
1	Rowe (2006)	Multiple dimension of childcare measurement such as QIAS which consists of six quality area to measure childcare quality	The findings shows that there is relationship between all the quality key area and childcare quality
2	Hanafi (2015)	Staff relationships, partnership with families, programming and evaluation, children experience and learning, protective care, safety, health, nutrition and support quality.	The findings shows that there is relationship between multiple variable and childcare quality
3	Cárcamo, Vermeer et al. (2014)	Infant or toddler environment rating scale	The findings shows that there are moderate level of quality of childcare was found, which did not differ from the previous quality levels reported in Chile.
4	Quality childcare service - Comparative views (2010)	Group size and staff-child ratio, educational level of childcare takers, inspection of childcare arrangement	The findings found that each of the countries have different care facilities with quality measures and requirements.
5	Waldfogel (2002)	Group size, child ratio, training provider	The findings found that smaller group size, higher child ratios, and higher levels of provider training are positively associated with quality
6	Gialamas et al., (2014)	Provider and program characteristics of care, activities in childcare, and caregiver-child relationship	The findings shows that children whose experienced higher-quality relationships were better to regulate their attention and emotions during the school entry.
7	Simon, Owen, & Hollingworth (2016)	Qualifications, pay and working conditions	The result shows that quality childcare important for government policy and goal while it contradict with the affordability of parent and pay for worker in childcare industry
8	Cao & Li (2014)	Academic, administrative and relationship management and quality assurance framework from the role of government, market, and institution.	The findings found that there are quality and quality assurance issues have impacted on Private higher education development
9	Keçetep & Özkan (2014)	Quality and Quality assurance	The findings found quality in teaching & learning, research, increase of student mobility, recognition, comparability
10	Yingqiang & Yongjian (2016)	Quality culture, Quality assurance	The findings implies that the quality assurance of higher education must innovate the changes to quality culture to

			improve higher education quality
11	Sim & Idrus (2004)	Staff development, planning, work process, teamwork, customer priority, performance evaluation, system for learning material, receiving assignment and student records	The findings show that quality assurance practices amongst three groups are different.
12	Sturgeon (2013)	Internal quality control and external quality assessment such as document control, procurement performance, installation /construction and testing/commissioning.	The findings shows the process of quality assurance such as quality control and quality assessment.
13	Buckley & Poston (1984)	Software quality assurance in the dimensions of management, documentation, standards, practice and conventions, review and audits, and tool, techniques and methodologies.	The findings indicate that quality assurance for software field are interrelated with the dimension.
14	Hayati, Khairul Anuar, & Khairur Rijal (2008)	Good Manufacturing Practice (GMP) and HACCP food safety management as zero concept	The findings shows the importance of quality assurance in the manufacturing and handling of halal foods
15	Othman, Shaarani, & Bahron, (2016)	Level of knowledge, halal dietary quality assurance practices, and commitment	The findings found that research prevalence is associated with the ISO quality and quality management
16	Kim-Soon, Chin, & Ahmad (2017)	Good Manufacturing Practice (GMP) and HACCP food safety management	The findings shows that there are relationship between GMP and HACCP and the quality level of the current practice in halal food.

2.2 Physical Facilities

The following section will explain definitions, previous studies of physical facilities and the interrelation of physical facilities and quality assurance.

2.2.1 Definitions of Physical Facilities

In general, there are no specific terms for physical facilities. It was defined vary according to its dimensions and industry. For instance, according to food establishment regulations from Southern Nevada health district, Physical facilities means structure and internal of food establishment but doesn't include soap and tower and attachment. On the other hand, referring to law insider, physical facilities defined as buildings and physical structure that constructed by contractor. Besides, in term of education perspective, physical facilities also known as physical plant which consists of land, building, furniture and so on. (Beynon, 1997).

2.2.2 Past Studies on Physical Facilities

In the research of physical facilities, mostly of the studies fall on education field. For instance, study from Musa & Ahmad@Baharum (2012) pointed out the importance of physical assets and facilities for higher education toward efficient and effectiveness. Besides, referring to Tammy, Emeka, Nwachukwu, & Harcourt (2012) also argued the maintenance issue and culture of physical facilities, equipment and supplies in secondary schools at Nigeria. In addition, the problems, maintenance culture and facilities and equipment in physical education colleges also being discussed. (Gulhane, 2014). Not only this, according to Trilk et al. (2011) pointed out the physical facilities should encourage physical activity of 12th grade girls surrounding the school. The study examined 1394 school girls in 22 schools.

From the other point of view, physical facilities are used to measure the neighborhood environment and physical activity. For example, study from Ries, Yan,

& Voorhees (2011) examine the comparison of public and private recreational facilities among youth to test the environment and physical activity level. The findings showed that people tend to use public facilities than private thus importance of public facilities for the youth. On the other hand, research on physical facilities normally to examine address the health issue such as obesity. This can be explained by the study in U.S secondary school during school breaks and physical facilities. Result shows that physical activities and facilities help to reduce the rate of obesity of secondary students. (Hood, Colabianchi, Terry-McElrath, O'Malley, & Johnston, 2014). In addition, according to Abd-Latif, Mohd Nor, Omar-Fauzee, & Ahmad (2017), study of recreational facilities was used to identified the leisure time physical activity in Malaysia.

Besides, there are research of quality health facilities in Indonesia. According to Diana, Hollingworth, & Marks (2013), the study made comparison between public and private facilities. The result proven that the quality of health facilities is higher in public as compare to private. It is important to have standard and practice being implement to improve the overall quality level.

On the other hand, there are limited research on physical facilities in childcare industry. Mostly of the facilities are fall into health or medical industry. For instance, study from Mink & Yeh (2009) argued on methods and prevention measure for the infection of childcare facilities and school. Besides, research from Kahabuka, Kvåle, Moland, & Hinderaker (2011) pointed out the reason the care provider bypass health care facilities for childcare in rural area of Tanzania. The findings suggest that caregiver are willing to get better health quality service than quantity. The similar research also happened in Nigeria that emphasize on the quality of child health service

facilities for better improvement and management. (Ehiri, Oyo-Ita, Anyanwu, Meremikwu, & Ikpeme, 2005).

In addition, the childcare facilities seems to be related with microenvironment and pollution. According to the study from Houston, Ong, Wu, & Winer (2006), childcare facilities located at medium or high traffic areas where mostly children might be polluted by the emission of vehicle in California. Moreover, research from Laquatra, Maxwell, & Pierce (2005) also examine the indoor air pollutant in childcare facilities. The result showed that there are high level of pollutant in childcare facilities that might affect the health of the children.

2.2.3 Physical Facilities and Quality Assurance

There are some research that relate physical facilities and quality assurance. For instance, according to Musa & Ahmad@Baharum (2012), the findings showed that infrastructural development and physical environment of the higher institutions are significant in the quality assurance. Moreover, the research by Abdullah & Mohamad (2016) investigated the relationship of university recreational facilities service quality and student physical activities level at Universiti Teknologi MARA in Malaysia. The result indicated that there was no relationship between service quality and physical activity. However, there was other literature that mentioned universities still lack of facilities and quality to make student become active.

Besides, referring to Ndirangu & Udoto (2011), the study conducted to measure the quality of learning facilities and environment at Kenyan public universities. The result showed that the quality of the universities facilities such as library, online resources and lecture didn't met enough quality. On the other hand, research from Medhat, Samy, Wahed, & Mohamed (2008) study on medical equipment quality assurance for healthcare facilities to making continuous

improvement process towards system. In addition, medical research such as assessment of quality assurance in 89 health facilities at Tanzania. Quality assurance process such as specimen collection, testing and reporting should be adhere to serve the purpose of standard operating procedure for health facilities.

To conclude, there are limited research or studies that relate physical facilities of childcare and quality assurance. The literature review intend to shows the existing literature that relevant to physical facilities and close the gap between physical facilities, childcare and quality assurance.

Table 2.2

Summary of Past Empirical Research on Physical Facilities

No	Researchers	Dimensions	Findings
1	Musa & Ahmad@Baharum (2012)	Infrastructural development and physical environment	The findings showed that infrastructural development and physical environment of the higher institutions are significant in the quality assurance.
2	Tammy, Nwachukwu, & Emeka, Harcourt (2012)	Maintenance issue and culture of physical facilities, equipment and supplies	The findings implies that there are lack of maintenance culture of physical education/sports facilities, equipment and supplies.
3	Gulhane (2014).	Problems, maintenance culture and facilities and equipment	The findings indicated that there are poor maintenance culture of facilities, and equipment.
4	Trilk et al. (2011)	Physical activity level	The findings shows that physical facilities should encourage physical activity of 12th grade girls surrounding the school.
5	Ries, Yan, & Voorhees (2011)	Comparison of public and private recreational facilities among youth to test the environment and physical activity level	The findings showed that people tend to use public facilities than private thus importance of public facilities for the youth.
6	Hood, Colabianchi, Terry-McElrath, O'Malley, & Johnston (2014).	Physical facilities, school breaks, health issue	The result shows that physical activities and facilities help to reduce the rate of obesity of secondary students.
7	Abd-Latif, Mohd Nor, Omar-Fauzee, & Ahmad (2017)	Recreational facilities, leisure time physical activity	The findings shows that there are significant relationship between recreational facilities and the leisure time physical activity

8	Diana, Hollingworth, & Marks (2013)	Comparison between public and private facilities	The result proven that the quality of health facilities is higher in public as compare to private. It is important to have standard and practice being implement to improve the overall quality level.
9	Mink & Yeh (2009)	Methods and prevention measure for the infection of childcare facilities	The findings suggests that everyone involved in the care of children has a role in assuring that childcare.
10	Kahabuka, Kvåle, Moland, & Hinderaker (2011)	Health care facilities for childcare	The findings suggest that caregiver are willing to get better health quality service than quantity
11	Ehiri, Oyo-Ita, Anyanwu, Meremikwu, & Ikpeme, (2005).	Quality of child health service facilities	The findings shows the quality of child health service facilities for better improvement and management.
12	Houston, Ong, Wu, & Winer (2006)	Air pollution and childcare facilities	The findings shows childcare facilities located at medium or high traffic areas where mostly children might be polluted by the emission of vehicle in California
13	Laquatra, Maxwell, & Pierce (2005)	indoor air pollutant in childcare facilities	The result showed that there are high level of pollutant in childcare facilities that might affect the health of the children.
14	Abdullah & Mohamad (2016)	Recreational facilities service quality and student physical activities level	The result indicated that there was no relationship between service quality and physical activity. However, there was other literature that mentioned universities still lack of facilities and quality to make student become active.
15	Ndirangu & Udoto (2011),	Quality of learning facilities and environment	The findings showed that the quality of the universities facilities such as library, online resources and lecture didn't met enough quality
16	Medhat, Samy, Wahed, & Mohamed (2008)	Specimen collection, testing and reporting should be adhere to serve the purpose of standard operating procedure	The findings shows the medical equipment quality assurance for healthcare facilities to making continuous improvement process towards system

2.3 Employee Commitment

Employee commitment is important as it contribute to the organization success through their job satisfaction. The following section will be explain the definitions, previous studies of employee commitment and interrelation between employee commitment and quality assurance

2.3.1 Definitions of Employee Commitment

Employee commitment have been defined in various research literature. For example, Employee Commitment is defined as the strength of individual recognition and participation in specific organization. (Mowday, Steers, & Porter, 1979). Besides, Commitment also being defined as connections towards goal (Locke, Latham, & Erez, 1988), organization (Allen & Meyer, 1990), job (Rusbult & Farrell, 1983), attitude to works (Blau, 1985).

2.3.2 Past Studies on Employee Commitment

There are few research that developed and used to measure the commitment level. For instance, one of the pioneer measurement of employee commitment were developed by Allen & Meyer (1990) that used three component model of commitment such as Affective, Continuance, and Normative Commitment Scales to measure organizational commitment. In addition, referring to Meyer & Herscovitch (2001) argued that there are multiple dimension construct for commitment such as organizational, occupational and union. On the other hand, according to Mowday, Steers, & Porter (1979), organizational commitment such as Organizational Commitment Questionnaire (OCQ) were developed by Porter and his colleagues among 2563 employee in various organizations.

According to Boselie & Veld (2012), there are various research that examine the relationship of commitment in different dimensions and perspective. (Hipp,

Morrissey, & Warner, 2017; Harwiki, 2016; Ahmad et al., 2014; Wallace, de Chernatony, & Buil, 2013;; Boselie & Veld, 2012; Meyer, Stanley, & Parfyonova, 2012; Mowday et al., 1983, 1979; Ali, Rehman, & Ali, 2010; Becker, Billings, Eveleth, & Gilbert, 1996). This is further supported by Meyer, Stanley, & Parfyonova (2012) that conducted the study on commitment profile such as satisfaction, regulation, affect, engagement, organizational citizenship behavior, and well-being which explained employee commitment in different forms to influence behavior.

In addition, there are other research that linked with commitment such as employee commitment and well-being. According to Meyer & Maltin (2010), three component commitment were used to test the relationship between employee commitment and well-being. The findings shows that there are employee well-being were positive relationship with affective commitment, negative relationship with continuance commitment, and relatively less significant relationship in normative commitment.

Moreover, there are research that related employee commitment with motivation. Research from Meyer, Becker, & Vandenberghe (2004) examine the relationship between employee commitment and motivation. The dimension of goal regulation is derived from the theories to test whether motivated behavior can influence employee behavior. The research is further supported by Johnson, Chang, & Yang (2010) argued commitment and motivation through different identity level such as collective, relational, and individual with dimensions of promotion and prevention in works.

Other than that, there are also research that measured relation commitment in employee and supervisor relationship and work performance. Referring to the research from Becker, Billings, Eveleth, & Gilbert (1996), commitment to supervisors was

strongly associated with performance than commitment to organization. This can be further supported by Landry & Vandenberghe (2012) where the study identified four types of commitment such as affective, normative, continuance-sacrifices, and continuance-alternatives positively significant in 300 employee and supervisor in healthcare organization. Besides, according to Sokoll (2014) pointed out that the servant leadership was positively significant with employee commitment to supervisor.

In addition, recent study from Iqbal, Tufail, & Lodhi (2015) pointed out that there are relationship between employee loyalty and organizational commitment. The findings proven that there is a positive relationship between commitment and employee loyalty in Pakistani organizations. Not only this, there are studies on organizational effectiveness linking with employee commitment. The result proven that there is significant relationship between employee commitment and organization effectiveness through employer and employee relationship.

Other than that, there are some research that examine the relationship between employee commitment and corporate social responsibility. For instance, study from Collier & Esteban (2007) identified commitment in conceptual and perceptual factor such as employee attitudes and behaviors, policies, motivation and so on. Relation of commitment and corporate social responsibility are further explained by Ali, Rehman, & Ali (2010) implies that there are positive relationship between corporate social responsibility and employee organizational commitment.

From the human resource management perspective, there are several research on employee commitment. For instance, Shipton, Sanders, Atkinson, & Frenkel (2016) argued on the relationship between human resources manager and employee commitment. The findings from 509 employees and 67 line manager suggest that employee champion and strategic partner role in human resource management had

positive relationship with employee commitment. Besides, Saridakis, Muñoz Torres, & Johnstone (2013) also argued the importance of formal human resource as technique to increase commitment level.

On the other hand, leadership also associated with employee commitment. Referring to Wallace, de Chernatony, & Buil (2013), the study on 438 employees in a leading Irish bank suggest that effective leadership positively related with employee commitment.

There are little research that relate employee commitment and childcare. According to Boselie & Veld (2012), the study examine the relationship between level of employee commitment in different dimension such as organization, occupation and team with work performance. The result of the study showed that high performance were significantly associated with commitment while in depth, organizational commitment score lower than occupational and team commitment. Besides, based on Landsman (2001) argued on the relationship between organizational and occupational commitment and employee of public children welfare.

Not only this, based on the research from Hipp, Morrissey, & Warner (2017) that examine the relationship between childcare employee benefit with satisfaction from parent. The result showed that there employer financial support made the employer benefits from stress reduced and increased employee commitment in the workplace.

2.3.3 Employee Commitment and Quality Assurance

There are also some research that related Employee Commitment and Quality Assurance. Many of the research are come from healthcare industry. For instance, research from Gowen, Mcfadden, Hoobler, & Tallon (2006) identified the relationship

of healthcare quality practice and employee commitment in U.S hospitals. The result proven that quality program are highly associated with employee commitment. Besides, research from Schalk & Van Dijk (2005) examine the relationship between employee commitment and quality management in Dutch healthcare. The findings implied that there are significant relationship between employee commitment and quality management based on employee behavior with their organizations.

In addition, research from Elmadağ, Ellinger, & Franke (2008) examined the relationship of 310 frontline service employee in logistics industry and service quality. The findings proven that frontline service employee commitment improved performances in service quality context. Next, according to Sharma, Tak, Kong, & Kingshott (2015) pointed out that internal service quality influence employee satisfaction, commitment and well-being. The result proven that internal service quality has a positive relationship with the influence factor such as employee satisfaction, commitment and employee well-being.

In general, there are limited research that relate employee commitment with quality assurance in childcare industry. The review of employee commitment intend to close the gap of the past literature with the findings of the current study. The summary of past empirical research are shown in Table 2.3 below.

Table 2.3
Summary of Past Empirical Research on Employee Commitment

No	Researchers	Dimensions	Findings
1	Allen & Meyer (1990)	Affective, Continuance, and Normative Commitment Scales	The research used three component model of commitment such as Affective, Continuance, and Normative Commitment Scales to measure organizational commitment.
2	Meyer & Herscovitch (2001)	multiple dimension construct for commitment such as organizational, occupational and union	The findings identified that there are positive relationship between commitment and

			organizational, occupational and union.
3	Mowday, Steers, & Porter (1979),	Organizational Commitment Questionnaire (OCQ)	The research used OCQ to measure commitment level in organization.
4	Meyer, Stanley, & Parfyonova (2012)	Commitment profile such as satisfaction, regulation, affect, engagement, organizational citizenship behavior, and well-being	The findings suggests that there are significant relationship of commitment and commitment profile.
5	Meyer & Maltin (2010)	Affective, Continuance, and Normative Commitment Scales, Employee commitment and well-being	The findings shows that there are employee well-being were positive relationship with affective commitment, negative relationship with continuance commitment, and relatively less significant relationship in normative commitment.
6	Meyer, Becker, & Vandenberghe (2004)	Employee commitment, goal regulation, motivation	The findings indicate that the dimension of goal regulation is derived from the theories to test whether motivated behavior can influence employee behavior.
7	Johnson, Chang, & Yang (2010)	Different identity level such as collective, relational, and individual with dimensions of promotion and prevention in works.	The findings suggest there are significant relationship between commitment and motivation through different identity level,
8	Becker, Billings, Eveleth, & Gilbert (1996)	Commitment to supervisors	The findings suggest that commitment to supervisors was strongly associated with performance than commitment to organization.
9	Landry & Vandenberghe (2012)	Four types of commitment such as affective, normative, continuance-sacrifices, and continuance-alternatives	The findings show that there four types of commitment such as affective, normative, continuance-sacrifices, and continuance-alternatives positively significant in employee and supervisor.
10	Sokoll (2014)	Servant leadership, employee commitment to supervisor	The findings indicate that servant leadership was positively significant with employee commitment to supervisor
11	Iqbal, Tufail, & Lodhi (2015)	Employee commitment and employee loyalty	The findings proven that there is a positive relationship between commitment and employee loyalty in Pakistani organizations
12	Collier & Esteban (2007)	Commitment in conceptual and perceptual factor such as employee attitudes and behaviors, policies, motivation	The findings implies that there are significant relationship for commitment either in conceptual or perceptual factor.
13	Ali, Rehman, & Ali (2010)	Employee commitment and corporate social responsibility	The findings indicate that there are positive

			relationship between corporate social responsibility and employee organizational commitment.
14	Shipton, Sanders, Atkinson, & Frenkel (2016)	Employee champion and strategic partner role in human resource management, employee commitment	The findings suggest that employee champion and strategic partner role in human resource management had positive relationship with employee commitment.
15	Saridakis, Muñoz Torres, & Johnstone (2013)	Human resource and employee commitment	The findings indicated that importance of formal human resource as technique to increase commitment level.
16	Wallace, de Chernatony, & Buil (2013)	Effective leadership and employee commitment	The findings shows that effective leadership positively related with employee commitment.
17	Boselie & Veld (2012)	Level of employee commitment in different dimension such as organization, occupation and team with work performance.	The findings of the study showed that high performance were significantly associated with commitment while in depth, organizational commitment score lower than occupational and team commitment.
19	Hipp, Morrissey, & Warner (2017)	childcare employee benefit with satisfaction from parent	The findings showed that there employer financial support made the employer benefits from stress reduced and increased employee commitment in the workplace.
20	Gowen, Mcfadden, Hoobler, & Tallon (2006)	Health care quality practice and employee commitment	The findings proven that quality program are highly associated with employee commitment.
21	Schalk & Van Dijk (2005)	Employee commitment and quality management	The findings implied that there are significant relationship between employee commitment and quality management based on employee behavior with their organizations.
22	Sharma, Tak, Kong, & Kingshott (2015)	employee satisfaction, commitment and well-being	The result proven that internal service quality has a positive relationship with the influence factor such as employee satisfaction, commitment and employee well-being.

2.4 Communication

Communication is important as it deliver information and knowledge among people. For instance, communication is important for an organization to perform and successful. The following section will discuss definitions of communications, studies on communication and interrelation between communication and quality assurance.

2.4.1 Definitions of Communication

According to Cartier & Hanwood (1953), communication is defined as process for replicate memories to conduct attention for other people. In recent study, communication can be defined as activity of transfer information through messages, speech, visuals, signals, behavior and others. (Velentzas & Broni, 2014). Moreover, according to Oxford Dictionaries (2016), communication is defined as exchanging of information through the channel of speaking, writing, or other channel.

There are also types of communication that brings different definition in their field. For instance, internal communication is defined as intra-organizational communication or call as employee communication. Internal communication can be identified that all communication that occur within an organizations (Tkalac Verčič, Verčič, & Sriramesh, 2012). In addition, Argenti (1996) mentioned that corporate communication as where people communicate in organization with audience, message, and channel. Moreover, Burns, O'Connor, & Stocklmayer (2003) defined science communication as adopt skills, media, activities, and speaking to create one or more responses. On the other hand, Hallahan, Holtzhausen, van Ruler, Verčič, & Sriramesh (2007) defined strategic communication as intention to fulfill its task in organization.

2.4.2 Past Studies on Communication

Referring to the study from Cardon (2008) indicated that frontline employee communication are important to bring reputation and image of the organization and

lead to organization success. In addition, research from Watson (2011) implies that good communication is the important element for an organization to be successful. It might lead to employee commitment and many other benefits.

On the other hand, there are many research that relate communication in various field. For instance, education field. Based on the research from Thornhill, Lewis, & Saunders (1996) pointed out that employee communication helps to employee commitment which lead to high quality toward higher education.

There are many studies that related with internal communication in terms of business organization. Based on recent studies by Men, (2014) identified that organizational leadership influence internal communication. The findings suggested that transformational leadership have positive relationship with internal communication which improved the relationship between employee and organization. Furthermore, study from Smidts, Pruyn, & Van Riel (2001) pointed out that employee communication and perceived external prestige influence organization identification.

From the health perspective, study from Reber et al. (2011) indicate that communication is important for interdisciplinary and rehabilitation need. This implies that communication is important for the doctor and patient to understand the process of rehabilitation through effective communication.

There are some studies that related with communication and childcare industry. For instance, according to the study from Shaheen (2017), it is identified that employee compensation, communication and culture would be the best strategies to retain childcare employees. Besides, Martinez, Tocantins, & de Souza (2013) argued that there are specific communication in child nursing care by 49 nurses in hospital. The result proven that there are different way of communication occurred between children

and nurses. In addition, Stremmel, Benson, & Powell (1993) examined the relationship of childcare employee in terms of communication, satisfaction and emotional exhaustion. The result proven that if there is communication on child training and employee development, it will create employee satisfaction and against emotional exhaustion.

From the other perspective, research from Ramsay et al. (2010) identified the relationship of communication, hunger and satiation. The findings suggest that training needed for children to cue hunger and satiation at specific communication signal.

2.4.3 Communication and Quality Assurance

There are some article or research that related communication and quality. One of the research from Ghazvini & Readdick (1994) shows that communication is getting importance relative with higher frequency of communication. The result proven that there are positive relationship between frequency of parent caregiver communication and quality of childcare. Besides, research from Pinto, Pessanha, & Aguiar (2013) examine the effect of home environment and center based childcare quality on child communication, language and literacy shows that positive relationship between childcare quality on child communication, language and literacy.

In addition, according to Burchinal, Roberts, Nabors, Bryant, & Burchinal (1996) suggested that childcare center quality will affected the child development in terms of cognitive and language. The result from 79 of 12-month-old infant proven that there are positive relationship between quality of childcare and child development.

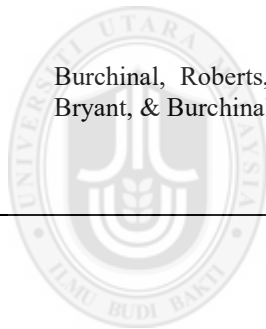
In general, there are limited research that relate communication with quality assurance in childcare industry. The review of communication intend to close the gap

of the past literature with the findings of the current study. The summary of past empirical research are shown in Table 2.4 below.

Table 2.4
Summary of Past Empirical Research on Communication

No	Researchers	Dimensions	Findings
1	Cardon (2008)	Frontline employee communication	The findings suggested frontline employee communication are important to bring reputation and image of the organization and lead to organization success
2	Watson (2011)	Effective communication, commitment, motivation	The findings implies that good communication is the important element for an organization to be successful. It might lead to employee commitment and many other benefits.
3	Thornhill, Lewis, & Saunders (1996)	Employee communication, higher education, commitment.	The findings implies that employee communication helps to employee commitment which lead to high quality toward higher education.
4	Men (2014)	Organizational leadership and internal communication	The findings suggested that transformational leadership have positive relationship with internal communication which improved the relationship between employee and organization.
5	Smidts, Pruyn, & Van Riel (2001)	Employee communication, perceived external prestige, and organization identification	The findings show that employee communication and perceived external prestige influence organization identification.
6	Reber et al. (2011)	Communication, interdisciplinary rehabilitation need and	The findings indicate that communication is important for the doctor and patient to understand the process of rehabilitation through effective communication.
7	Shaheen (2017)	Employee compensation, communication and culture	The findings indicated that employee compensation, communication and culture would be the best strategies to retain childcare employees.
8	Martinez, Tocantins, & de Souza (2013)	Communication and child nursing care	The result proven that there are different way of communication occurred between children and nurses

9	Stremmel, Benson, & Powell (1993)	Communication, satisfaction and emotional exhaustion and childcare employee	The result proven that if there is communication on child training and employee development, it will create employee satisfaction and against emotional exhaustion.
10	Ramsay et al. (2010)	Communication, hunger and satiation	The findings suggest that training needed for children to cue hunger and satiation at specific communication signal.
11	Ghazvini & Readdick (1994)	Parent caregiver communication and quality of childcare	The result proven that there are positive relationship between frequency of parent caregiver communication and quality of childcare
12	Pinto, Pessanha, & Aguiar (2013)	Quality of childcare centre, child communication, language and literacy	The findings examine the effect of home environment and center based childcare quality on child communication, language and literacy shows that positive relationship between childcare quality on child communication, language and literacy.
13	Burchinal, Roberts, Nabors, Bryant, & Burchinal (1996)	Childcare center, child development	The findings proven that there are positive relationship between quality of childcare and child development



Universiti Utara Malaysia

2.5 Employee Competencies

Competencies can be the element of competitive advantage for organizations to perform and successful. (Cardy & Selvarajan, 2006). The concept of competencies viewed differently across the organization. For instance, research on psychologists, management theorists, human resource, educationists and so on. The following section will be explaining the definition, past studies and relation of employee competencies and quality assurance.

2.5.1 Definitions of Employee Competencies

According to Cardy & Selvarajan (2006), competencies defined as characteristics associated with successful performance. Besides, Boyatzis (2009) define competencies as ability in person and predict performance. (Ley & Albert, 2003). In addition, Drejer (2001) refer “competence consists of four element such as technology, people, organizational culture and structure” and lead to competencies from easy to hard. Moreover, Hoffmann (1999) defined competency in two meaning which is output and input. Output referring to competent performance while input is the underlying attributes.

2.5.2 Past Studies on Employee Competencies

Past studies of competencies have been conducted in various industry. For instance, in the education field, research conducted for teacher competencies from Selvi (2010) shows teacher competencies in nine different dimensions such as “field, research, curriculum, lifelong learning, social culture, emotional, communication, information, technologies and environmental competencies”. The result shows that competencies positively affect value, behavior, communication and professional development. In addition, Mendenhall (2012) explained the importance of competency based education to improve and measure student learning.

Besides, in terms of business context, study from Mitchelmore & Rowley (2013) implies that entrepreneurial competencies of women entrepreneurs effect the organization successful. Based on the result, there are finding of four main competencies being identified such as personal and relationship, business management, entrepreneurial, and human connections. In addition, according to Yu & Ramanathan, (2013), research conducted on retail firms in China shows that employee competencies such as good team work and self-motivation helps in achieve retail success. Furthermore, based on the study on competencies as a behavioral approach, emotional, social and cognitive intelligence competencies assume successful in the roles of professional, management and leadership. (Boyatzis, 2009)

Next, research from health industry interpreted competencies differently. According to Cpsi (2009), Canadian Patient Safety Institute introduce six domain of safety competencies to enhance a high quality health care. The six domain included contribute to culture of patient safety, work in teams for patient safety, communicate effectively, manage safety risks, optimize human and environmental factors, recognize, respond and disclose adverse events. In addition, referring to the study from Mirzazadeh et al. (2014), there are competency framework which based on medical education. The framework consists of eight dimension such as skills of “clinical, communication, patient management, health promotion and disease prevention, personal development, professionalism, medical ethics and law, decision making, reasoning, health system and physicians responsibilities.”

According to childcare context on employee competencies, research from Lowenthal, B. (1995) discuss the competencies for early childhood special educator in several dimension such understanding of early childhood, working experience, cooperative skills, service delivery and so on. In addition, there are research on social

competency where children environment as teaching and learning outcome. (Small & Fulcher, 2006). Furthermore, there are similar studies from Pek-Greer & Wallace (2017) explained the importance of factor such as employee professional development, compensation and reward to retain childcare employee.

2.5.3 Employee Competencies and Quality Assurance

There are some research that proven employee competencies and quality assurance are interrelated. Mostly of the research are based on education field. According to the research from Sava, Borca, & Danciu (2014) that argued the validation of competencies in higher education to ensure quality assurance model. The study used validation of prior learning to ensure the quality in education at countries such as Switzerland, Netherlands, and Nordic. Besides, in terms of engineering education, according to the research from Woollacott (2009) indicate that graduate competencies in Quality Assurance is interrelated with engineering education.

In addition, referring to Cheung (2015) identified the relationship between professional competencies and external quality assurance in higher education. The findings proven that it is important for professional to have competencies in quality assurance to be useful in long run.

Next, there are research that examine the relationship between internal quality assurance and administrators competencies at Thailand. The findings showed that there are significant relationship of administrator competencies and internal quality assurance at school level. (Thanomwan & Dhatthakan, 2014).

On the other hand, study from Wu, Tsai, Hsiung, & Chen (2015) investigated the relationship between employee service competencies and customer service quality. The findings proven that there are positive relationship between both reliability and

assurance of service quality dimensions and interpersonal service competencies of the frontline employee.

In general, there are limited research that relate employee competencies with quality assurance in childcare industry. The review of employee competencies intend to close the gap of the past literature with the findings of the current study. The summary of past empirical research are shown in Table 2.5 below.

Table 2.5

Summary of Past Empirical Research on Employee Competencies

No	Researchers	Dimensions	Findings
1	Selvi (2010)	teacher competencies in nine different dimensions such as “field, research, curriculum, lifelong learning, social culture, emotional, communication, information, technologies and environmental competencies”	The result shows that competencies positively affect value, behavior, communication and professional development.
2	Mendenhall (2012)	Importance of competency based education to improve and measure student learning.	The findings suggest the importance of competency based education to improve and measure student learning.
3	Mitchelmore & Rowley (2013)	Four main competencies being identified such as personal and relationship, business management, entrepreneurial, and human connections.	The findings found out that entrepreneurial competencies of women entrepreneurs effect the organization successful.
4	Yu & Ramanathan (2013)	Employee competencies such as good team work and self-motivation	The findings indicate that employee competencies such as good team work and self-motivation helps in achieve retail success.
5	Boyatzis (2009)	competencies as a behavioral approach, emotional, social and cognitive intelligence competencies	The findings suggested competencies as a behavioral approach, emotional, social and cognitive intelligence competencies assume successful in the roles of professional, management and leadership
6	Cpsi (2009)	six domain included contribute to culture of patient safety, work in teams for patient safety, communicate effectively, manage safety risks, optimize human and environmental factors, recognize, respond and disclose adverse events	The findings shows that Canadian Patient Safety Institute introduce six domain of safety competencies to enhance a high quality health care

7	Mirzazadeh et al. (2014)	Eight dimension such as skills of “clinical, communication, patient management, health promotion and disease prevention, personal development, professionalism, medical ethics and law, decision making, reasoning, health system and physicians responsibilities.”	The findings shows that competency framework which based on medical education to enhance a high competency level.
8	Lowenthal, B (1995)	Dimensions such understanding of early childhood, working experience, cooperative skills, and service delivery	The findings suggests the competencies that have significant relationship with early childhood special educator
9	Pek-Greer & Wallace (2017)	employee professional development, compensation and reward	The findings explained the importance of factor such as employee professional development, compensation and reward to retain childcare employee.
10	Sava, Borca, & Danciu (2014)	Validation of competencies in higher education	The study used validation of prior learning to ensure the quality in education at countries
11	Woollacott (2009)	Graduate competencies and quality assurance	The findings indicate that graduate competencies in Quality Assurance is interrelated with engineering education.
12	Cheung (2015)	Professional competencies and external quality assurance	The findings proven that it is important for professional to have competencies in quality assurance to be useful in long run.
13	Thanomwan & Dhatthakan (2014)	Internal quality assurance and administrators competencies	The findings showed that there are significant relationship of administrator competencies and internal quality assurance at school level.
14	Wu, Tsai, Hsiung, & Chen (2015)	Employee service competencies and customer service quality	The findings proven that there are positive relationship between both reliability and assurance of service quality dimensions and interpersonal service competencies of the frontline employee.

2.6 Underpinning Theory of the Current Study

In this study, the theory that related to quality assurance is Total Quality Management. The researchers used Total Quality Management (TQM) to describe the relationships on the factors (physical facilities, employee commitment, employee competencies and communication) influence quality assurance level in this study.

2.6.1 Total Quality Management (TQM)

According to Bowen (2013), Total Quality Management is a quality improvement practice to improve quality and process for customer-based and service. Total Quality Management was first developed in Japan and explained by Deming then Juran, Crosby, Ishikawa and others. TQM might different according to the need and wants of the organization.

Deming's theory of TQM taught method of statistical analysis and control of quality. Deming's theory identified fourteen points of management and four element in system of profound knowledge. The four element in system of profound knowledge consists of system appreciation, variation knowledge, knowledge theory and psychology knowledge. On the other hand, Deming theory also emphasized on Plan-Do-Check-Act (PDCA) cycle for continuous improvement. Deming's theory of TQM helps the organization to improve their quality through continuous improvement. (Rungtusanatham, Ogden, & Wu, 2003; Petersen, 1999; Anderson & Rungtusanatham, 1994; Gartner & Naughton, 1988).

On the other hand, Juran's theory of TQM focus on Quality Trilogy which consists of quality planning, quality improvement and quality control. Juran's theory also explained ten steps to quality improvement. (J. Juran, 1989; J. M. Juran, 1988; Landesberg, 1999)

Moreover, Crosby's theory of TQM identified four absolute of quality and fourteen steps for quality improvement. Crosby's theory identified absolute of quality in terms of prevention, zero defects, quality requirements and quality measurement (Crosby, 1989; Dale et al., 2001; Zemke, 1993).

Not to forget, Ishikawa's theory of TQM also developed theory for quality improvement and problem solving such as namesake diagram. Besides, Ishikawa's also developed tools such as pareto analysis, cause and effect diagram, check sheets, histograms and others. All this tools are used for quality measurement and improvement. (Hermens, 1997; Kindlarski, 1984; Wong, Woo, & Woo, 2016).

There are some of the studies that relate TQM with the factors (physical facilities, employee commitment, employee competencies and communication). For instance, research from Gupta & Datta (2016) pointed out that the improvement of service quality on railway station facilities improves customer satisfaction. This implies that quality improvement of service quality on physical facilities of the railway stations lead to customer satisfaction.

Besides, study from Wickramaratne (2013) examine the relationship between organizational commitment and TQM. From the sample of 67 employee, the findings proven to have positive relationship between organizational commitment and excellence for TQM. In addition, there are research on implementation of TQM, total productive maintenance (TPM) and reliability centred maintenance (RCM) can helps to manage commitment in organization. (Hansson, Backlund, & Lycke, 2003).

Moreover, Das, Kumar, & Kumar (2011) investigated the relationship between leadership competencies and TQM practice. According to the findings from Thai manufacturing industry, it is proven that there are significant relationship between

leadership competencies and TQM in terms of product quality, customer satisfaction, employee morale and others.

Based on the past studies, it is proven that TQM is the underlying theory for quality assurance. Some of the studies also suggested significant relationship between factors such as physical facilities, employee commitment, employee competencies and communication.

2.7 Gaps in Literature

This study aims to fill the gaps in the literature through investigating the relationship of factors (physical facilities, employee commitment, employee competencies and communication) and quality assurance in different perspective. It is important to identify whether the factors affect quality assurance level among childcare employee in Selangor, Malaysia. For quality assurance, previous studies normally focus on medical and health industry and higher education industry. (Nicholson, 2011; Amaral & Rosa, 2010; Costes et al., 2010; Medhat et al., 2008; Ndirangu & Udoto, 2011).

Besides, according to the literature review, there is limited studies on the relationship of the factors and quality assurance. Until now, there are only single dimension that specific measure each factor and quality assurance. For instance, study from Schalk & Van Dijk (2005) identified the relationship between employee commitment and quality management in Dutch health care. Not only this, many of the literature review are based on different industry or settings and not specifically focus on childcare industry. There are limited research that conducted in childcare industry especially in Malaysia.

2.8 Summary of Chapter

This chapter provides a fundamental understanding and concept of this study. This study discusses four factors such as physical facilities, employee commitment, employee competencies and communication that might affect quality assurance level. There are also discussion on the underlying theory of quality assurance such as TQM and the previous studies that related to TQM.



CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

This chapter describe, theoretical framework, hypotheses development and, the methods and procedures that were used for data collection and analysis in this study. The selection of research methodology is crucial and vital as it measures the effectiveness of a research. It must be aligned with research questions and objectives that being examined. The questionnaire survey form was distributed to examine the relationship between quality assurance and physical facilities, employee commitment, employee competencies and communication among childcare employees in Selangor. In addition, this study sought to identify the influence between quality assurance and physical facilities, employee commitment, employee competencies and communication among childcare employees. This chapter covers research design, pilot test, population and sampling size, unit of analysis, questionnaire design, measurement scales, data collection and data analysis used to analyze the data.

3.1 Theoretical Framework

The theoretical framework of this study is shown in Figure 3.1. Theoretical frameworks are critically important to all of our work, quantitative, qualitative, or mixed methods. All research articles should have a valid theoretical framework to justify the importance and significance of the work. (Lederman & Lederman, 2015). Quality assurance is the main variable which required to be investigated in this study. There are four independent variables which are physical facilities, employee commitment, employee competencies and communication.

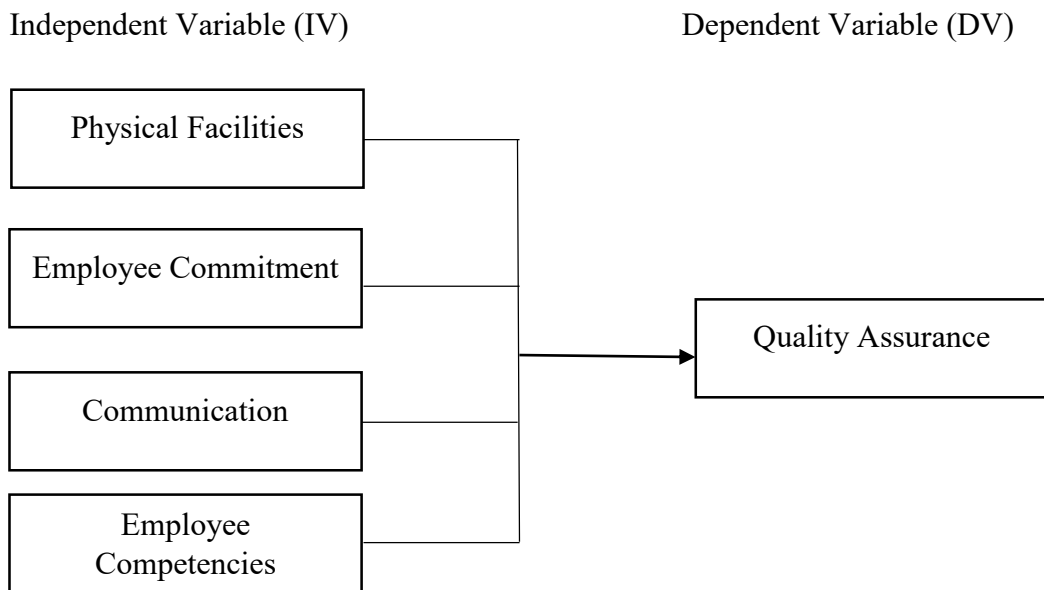


Figure 3.1:

Theoretical Framework of the Research

3.2 Hypotheses Development

Hypothesis 1:

H1: There is a significant relationship between Physical Facilities and Quality Assurance among childcare employees in Selangor.

Hypothesis 2:

H2: There is a significant relationship between Employee Commitment and Quality Assurance among childcare employees in Selangor.

Hypothesis 3:

H3: There is a significant relationship between Communication and Quality Assurance among childcare employees in Selangor.

Hypothesis 4:

H4: There is a significant relationship between Employee Competencies and Quality Assurance among childcare employees in Selangor.

3.3 Research Design

The research design is defined as the framework to conduct research which define procedures and method that requires the needed information and solve the problem. (Zikmund, Carr, Griffi, & Babin, 2013). In the current study, from the research questions and objectives, it was concluded that a quantitative method was suitable. In this study, a survey using questionnaires are used to collect a data. Survey methods are mostly used to collect descriptive data in quantitative research. A quantitative research helps researchers to gain information and obtain greater understanding of the relationship among the variable, level of significance of hypothesis. Not only this, the quantitative research is to test the research hypothesis as it is important to verify the hypothesis and relationship of variables in the study. (Zikmund et al., 2013).

In this study, the data were analyzed using “Statistical Package for Social Science” (SPSS) version 22.0. This study is using a survey form questionnaire to collect primary data. Likert scales are used to measure the response of the respondents. Likert scale from 1 to 5 which ranging from “1-Strongly Disagree” to “5-Strongly Agree” is applied for measurement. The five-point scale is appropriate as it keep the comparability of the result. In order to test the reliability of the item, pilot test has been carried out. The questionnaire was prepared in dual language which is English and Malay to ensure the respondent can understand and fill in accordingly.

3.4 Population and Sampling

According to Krieger (2012), the concept of “population” is essential to the population sciences but is hardly defined except in statistical terms. In addition, a population is the whole combination of parts from which the researcher decides to formulate some assumptions. (Cooper & Schindler, 2014). To be precise, a research

population is generally a large collection of individuals or objects that is the main focus of researchers wants to examine.(Mohamed Adam, 2009). The populations of this study are the childcare employees in registered childcare centres of Selangor state. According to Ministry of Women, Family and Community Development (2016), the population of childcare centres in Malaysia is 4272. For this study, there are total of 1360 childcare centres or “taska” in Selangor. Based on the number of childcare centre, each centre was assumed to have at least 3 childcare employee. Therefore, there are estimated around 4080 childcare employees at Selangor. This study focuses on all the registered childcare or “taska” in Selangor as the study population and a sample. This study is using simple random sampling as the sampling techniques where childcare centres are randomly selected to conduct the survey. The reason for selecting registered childcare because all the childcare employee perform the same responsibility regardless where they are and this indicate that the selected sample can achieve generalizability to represent the registered childcare centres population.

3.4.1 Sample Size Determination

In general, a sample design is the framework that serves the basic selection of a survey sample. (Lavrakas, 2008). Sample size is part of research design that affects the validity and findings identified in research studies.(Burmeister & Aitken, 2012). It is important to know the method and procedures to select sample from population so that the result is acceptable. Based Roscoe (1975), there is seldom justification for sample of this study which more than 30 but less than 500 as is suitable for most of the research. (Hill, 1998). In order to determine the sample size, Krejcie and Morgan (1970) produced a table by applying the formula of sample size for a finite population. Based on Krejcie and Morgan (1970) table, with the population of 4080, the sample

size is 354. Therefore, there are around 450 sets of the questionnaire will be distributed to childcare centres or “taska” in Selangor.

The table for the sample size determination recommended by Krejcie and Morgan (1970) is shown as below:

Table 3.1

Table for deciding Sample Size of a Known Population

Population Size	Number of samples
4000	351
4500	354
5000	357

Source: Krejcie and Morgan (1970)

3.4.2 Sampling Design

The sampling techniques which has been used in this study is convenience sampling. Convenience sampling is one of non-probability sampling method where the respondent are convenient to respond in the study. This sampling techniques has been used and applied in the study and conducted in the childcare centres in Selangor. This techniques is suitable it is simple, ease of research, helpful for data collect for the study. (Convenience sampling - Research Methodology)

3.4.3 Unit of Analysis

In general, the unit of analysis is where the major entity of the analysis.(Trochim, 2006) Based on the population, the unit analysis is the childcare employees in childcare centres. This study is focus on the individual employees of registered childcare centres. Therefore, the data will be collected from each individual.

3.5 Questionnaire Design

In this study, questionnaire is developed to obtain information from respondents. According to Brace (2018), Questionnaire is used to refer both to questionnaire where participant fill in the form and instruments used by an interviewer to collect data.

In this research, the questionnaire comprises of 35 questions. The questionnaire is divided into 2 sections. Section A is to require demographic data of respondents. Section B covers question which related to dependent and independent variables of the study. Section A and section B has 6 and 29 questions respectively.

In Section A, it consists the information of gender, age, ethnic group, religion, highest education level, as well as working experience. Section B aims to collect the information from respondents regarding Quality Assurance, physical facilities, employee commitment, employee competencies and communication.

The dimensions and items for each variable are shown as below:

1. **“Quality Assurance”** comprises of 8 items which adapted from the Saraph, Benson, & Schroeder. (1989)
2. **“Physical Facilities”** comprises of 4 items which adapted from the Parasuraman, Zeithaml, & Berry (1988)
3. **“Employee Commitment”** comprises of 7 items which adapted from the Mowday, Steers, & Porter (1979)
4. **“Communication”** comprises of 6 items which adapted from the Rowe (2006)
5. **“Employee Competencies”** comprises of 4 items which adapted from the Berdrow & Evers (2010)

The summary of the items in each variable is shown in Table 3.2 below:

Table 3.2
Summary of the Questionnaire Design

Variables	No of Items	Items
Section A:	6	Section A: Item 1 - 6
Demographical Background		
Section B:		
Quality Assurance	8	Section B: Item 1 - 8
Physical Facilities	4	Section B: Item 9 - 12
Employee Commitment	7	Section B: Item 13 - 19
Communication	6	Section B: Item 20 - 25
Employee Competencies	4	Section B: Item 26 - 29

3.6 Measurement of Study

Measurement is defined as the process observing and recording the result as part of a research effort. (Trochim, 2006). According to Covin & Wales (2012), measurement models specify relationships between latent constructs and their measures such as items, indicators and so on. This explained the researcher can classify variable into different categories by applying the scale of measurement.

According to Beglar & Nemoto (2014), likert-scale questionnaires are the most frequent used instrument for measuring affective variables to gather large figure of data. In addition, McLeod (2008) also mentioned that Likert Scale is a five point scale which allow the individual to express the level of agreement toward a statement. In this study, Likert scales measurement are used to measure all the questions in Section B as it can generate data that valid and reliable. Respondents are required to indicate a response to each statement according to the stated scale.

Table 3.3 below shows the measurement scales and score used in this study:

Table 3.3

Measurement Scales

Scales	Score
Strongly Disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly Agree	5

Source: McLeod (2008)

3.6.1 Measurement of Construct

In this study, the data were analyzed by applying the Statistical Package for Social Science (SPSS) version 22.0. In order to obtain and verify the validity and reliability of questions, the questionnaire has been adapted and adopted from previous research. Table 3.4 indicates the variables and the number of items in this study.

Table 3.4

Summary of Measurement of Construct

Variable	No. of Items	Source and Year
Quality Assurance	8	Saraph, Benson, & Schroeder. (1989)
Physical Facilities	4	Parasuraman, Zeithaml, & Berry (1988)
Employee Commitment	7	Mowday, Steers, & Porter (1979)
Communication	6	Rowe (2006)
Employee Competencies	4	Berdrow & Evers (2010)

Table 3.5

Quality Assurance Construct

STATEMENT Quality Assurance
Saraph, Benson, & Schroeder (1989)
There is a comprehensiveness of goal-setting process for quality within the childcare centre.
There is a degree of comprehensiveness of quality plan within the childcare centre.
Quality related training technical given to employees throughout the childcare centre.
Training in the total quality concept throughout the childcare centre.
Availability of resources for employee training in childcare centre.
Effectiveness of quality circle or employee involvement type programs are implemented in the childcare centre.

Amount of feedback provided to employees on their quality performance.
Quality awareness building among employees is ongoing.

Table 3.6
Physical Facilities Construct

STATEMENT Physical Facilities
Parasuraman, Zeithaml, & Berry (1988)
The childcare centre have up-to-date equipment.
The childcare centre physical facilities are visually appealing.
Employee of childcare centre are well dresses and appear neat.
The appearance of the physical facilities of childcare is in keeping with the types of service provided.

Table 3.7
Employee Commitment Construct

STATEMENT Employee Commitment
Mowday, Steers, & Porter (1979)
I am willing to put a great deal of effort beyond that normally expected in order to help childcare centre be successful.
I would accept almost any type of job assignment in order to keep working for childcare centre.
I find that my value and childcare centre values are very similar.
I am proud to tell others that I am part of this childcare centre.
Childcare centre really inspires the very best in me in the way of job performance.
I am extremely glad that I choose childcare centre to work for over others I was considering at the time I joined.
For me, this is the best of all possible childcare centre for which to work.

Table 3.8
Communication Construct

STATEMENT Communication
Rowe (2006)
I have been interact with each child in a warm and friendly way.
I have been initiate and maintain respectful communication with each child.
I have been communicate effectively to promote respect and professional teamwork.

I have been communicate with families effectively to exchange information about each child and centre.

I have the written information about the childcare centre's management which is readily available to families.

I have received the written information about the childcare centre's management to staff.

Table 3.9

Employee Competencies Construct

STATEMENT

Employee Competencies

Berdrow & Evers (2010)

I have the knowledge from every day experiences and formal education experience about childcare.

I am able to manage several task at once, being able to set priorities and allocate time efficiently in order to meet deadlines in childcare centre.

I am able to maintain energy level, motivating myself to perform, maintain positive attitude and responding appropriately to criticism in childcare centre.

I am able to identify, prioritizing and solving problem in childcare centre.

3.7 Data Collection Method

In this study, the researcher collect primary data through questionnaires survey method. The researcher conducted personally administered questionnaires to obtain immediate reply from respondents and can explain to respondent in the same time if they don't understand. Registered childcare centres or "taska" in Selangor has been selected as respondents in this study. The population of the registered childcare centres in Selangor is 1360. The sample size for 4080 population is 354 childcare employees in childcare centre as respondents. In this study, 450 questionnaire were distributed to all of the respondents by using simple random sampling method.

The researcher gave the dual language version of the questionnaires to every respondents. The questionnaire took around 30 minutes to be completed. The researcher collected the completed questionnaires within one week after distributed. The data were collected about one-month period. The researcher collected the data

personally to get quick response from the respondents. A total of 450 questionnaires were distributed and 400 questionnaires were returned. However, 21 questionnaires were rejected due to incomplete and therefore 379 questionnaire remained and were used for analysis.

3.8 Pilot Test

Pilot test is defined to test, feasibility of method and procedures on a larger scale.(Thabane et al., 2010) In this study, the researcher has carried out the pilot test from the respondents that are similar to real study. The research questions and hypothesis of this study measures five main variables, quality assurance, physical facilities, employee commitment, employee competencies and communication. Each of the variable was measured by a list of questions item using a Likert type scale.

A pilot test was performed among the registered childcare centres employee in Selangor. Thirty number of childcare employee among the registered childcare centre were selected to participate in the pilot test. The pilot test aims to ensure every respondent understand the question in the questionnaire. The pilot test can assist to improve the questionnaire development and pre-testing before implementing in bigger scale. The result of pilot test showed in Table 3.10 below.

Table 3.10
The Cronbach Alpha for Pilot Test

Variables	Pilot Test (n= 30)
Quality Assurance	0.887
Physical Facilities	0.816
Employee Commitment	0.852
Communication	0.874
Employee Competencies	0.874

3.9 Data Analysis Strategy

The current study used quality assurance as the dependent variable, while physical facilities, employee commitment, employee competencies and communication as independent variable. In this study, Statistical Package for Social Science (SPSS version 22.0) software is used to analyze questionnaire data. Next, normality test is applied to examine whether the data is in normal distribution. Besides, reliability test is used to measure the validity. Not only this, descriptive analysis is used to measure the individual demographic characteristics.

3.10 Reliability Test

According to Joppe (2000), reliability is defined as the results which consistent and can reproduced under same methodology are considered reliable. It consists the idea of replicability or repeatability of result. (Golafshani, 2003). In addition, based on Sekaran & Bougie (2016), reliability implies as to the extent of study without bias and achieve the result of stability and internal consistency. In this research, researcher intended to do interitem consistency reliability to measure the answer of all item whether correlated with each other. Hence, Cronbach's alpha is used to test the items. If the Cronbach's Alpha value is greater than 0.7, the internal consistency is acceptable.

Table 3.11
Internal Consistency Measurement

Cronbach's Alpha	Internal Consistency
0.9 = α	Excellent
0.8 = $\alpha < 0.9$	Good
0.7 = $\alpha < 0.8$	Acceptable
0.6 = $\alpha < 0.7$	Questionable
0.5 = $\alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

Source: Sekaran & Bougie (2016)

3.11 Validity Test

Although the study can prove the reliability and internal consistency, however, the instrument itself may not be valid. Therefore, validity test is needed to truly measure the result of the study. (Golafshani, 2003). According to Sekaran & Bougie (2016), validity is examine through measuring instrument to tap the concept. In this study, researcher used face validity and construct validity. Face validity used the items to measure the concept while construct validity used the result measurement fit with the theories. One of the reason validity test used to measure the factor analysis, using multivariate technique to examine the most appropriate item for each variable. (Sekaran & Bougie, 2016)

3.12 Factor Analysis

According to UtrechtUniversity (2012), factor analysis tend to identify variables, factors, correlations among measurement items. Factor analysis is used to summarize data into a small number of factors from larger number of variables. In addition, factor analysis also used to generate hypotheses such as collinearity analysis and linear regression analysis. Moreover, Andale (2017) stated that Kaiser-Meyer-Olkin (KMO) test is measure of sampling adequacy of variable which is suitable for factor analysis. For instance, one of the rule of thumb for KMO values between 0.8 and 1 implies that sampling is adequate.

Table 3.12
KMO value and Variance Level

KMO Value	Degree of Common Variance
0.00 to 0.49	Unacceptable
0.50 to 0.59	Miserable.
0.60 to 0.69	Mediocre.
0.70 to 0.79	Middling.
0.80 to 0.89	Meritorious.

Source: Andale (2017)

3.13 Data Screening

Data screening is the process of ensuring your data is reliable and valid for further statistical analyses. (Gaskin, 2016). Data screening will focus on missing value, multivariate outliers test and normality test.

3.13.1 Missing Value

According to Armitage, Godzien, Alonso-Herranz, López-González, & Barbas (2015), missing values can lead to inaccurate statistical analysis and interpretation of data. Missing value is important as it will impact the result of the study. Some example of missing value such as noncoverage, total nonresponse, and item nonresponse. (Cheema, 2014).

3.13.2 Normality Test

Normality test is needed to be checked for many statistical process and procedure as the validity depends on it. Normality can be view in significance test and normal plot. (Ghasemi & Zahediasl, 2012). In this study, Quantile-Quantile probability plot (Q-Q plot) has been used to test the normality. If the points located close to reference line in Q-Q plot, it is considered a standard normal distribution.

3.14 Inferential Analysis

According to Sekaran & Bougie (2016), inferential analysis is the relationship between different group and inference from statistical results through sample to population. It consists of correlation, t-test, ANOVA, multiple regression analysis and so on.

3.14.1 Pearson's Correlation Analysis

Pearson's correlation analysis is used to measure the relationship between two variables in the study. In addition, it will provide result, strength and significance of bivariate relationship. (Sekaran & Bougie, 2016).

In fact, the symbol of correlation coefficients named as 'r' and the sign ranged from +1 to -1. Value of +1 shows positive relationship while -1 show negative relationship.

Table 3.13
Strength of Pearson Correlation Coefficient

Range of Coefficient	Description of Strength
$\pm .70$ or higher	Very Strong
$\pm .40$ to $\pm .69$	Strong
$\pm .30$ to $\pm .39$	Moderate
$\pm .20$ to $\pm .29$	Weak
$\pm .01$ to $\pm .19$	No or negligible
0	Zero correlation

Source: Andale (2012)

3.14.2 Multiple Regression Analysis

Multiple Regression is a statistical analysis that examine the few independent variables that related to dependent variable and use for accurate predictions. (Lynch, 2013). In addition, the aim of conduct this analysis is to examine the relationship that happen between dependent variable and independent variable as stated in the hypothesis. Multiple regression analysis provide the most significant factors that influenced the Quality assurance among childcare employees.

3.15 Summary of the Chapter

In general, this chapter presents the research methodology such as theoretical framework, hypothesis development, research design, population and sampling, questionnaire design, measurement of study, data collection method, pilot test, and data analysis strategy.



CHAPTER 4

FINDINGS

4.0 Introduction

This chapter will present the result of data analysis in accordance with the research methodology that discussed from the previous chapter. In fact, there are various factors that influence quality assurance among childcare employees. This study will discuss four factors which are physical facilities, employee commitment, communication, employee competencies that influence quality assurance.

Data analysis is the process of applying statistical technique to evaluate data. The statistical technique such as descriptive statistics like frequency, mean, mode, median, standard deviation and variance while inferential statistics include reliability, correlation and regression. A total of 379 were received from 450 questionnaires that distributed to the respondents.

4.1 Rate of Reaction of Respondents

A total of 450 questionnaires were distributed to childcare employee in Selangor and 379 questionnaires were returned indicate the response rate for this study was 84.2%. According to Fryrear (2015), it is favorable to get a high response rate around 80% and above from a small sample rather than large respondent and internal survey will normally generate 30-40% response rate. In this study, employee considered as internal survey and the response rate was 84.2%. The distribution and collection of the completed questionnaires took around one month within January 2018. Table 4.1 shows the response rate.

Table 4.1
Total Rate of Reaction of Respondents

Items	Respondent
The number of questionnaires distributed	450
The number of questionnaires received	400
Complete questionnaire	379
Incomplete questionnaire	21
Rate of reaction received	84.2%

4.2 Reliability Test

According to Sekaran & Bougie (2016), if the alpha value is equal or greater than 0.7 is at acceptable level. While less than 0.7 is considered at weak and poor level. Reliability test result for pilot test and real test are shown in Table 4.2 below.

Table 4.2
Reliability Test result for Pilot Test and Real Test

Variable	No. Item	Cronbach's Alpha	
		Pilot Test N=30	Real Test N=379
Quality Assurance	8	0.887	0.890
Physical Facilities	4	0.816	0.820
Employee Commitment	7	0.852	0.892
Communication	6	0.874	0.870
Employee Competencies	4	0.874	0.868

The reliability result shows that the coefficient of reliability of the variables is 0.816 to 0.887 for pilot test and 0.820 to 0.892 for the real test. The overall coefficient of reliability for pilot test and real test are 0.945 and 0.956 respectively. According to Sekaran & Bougie (2016), the measurement of the variable for both independent and dependent variable is achieved excellent because it reached the alpha value more than 0.7 and above.

4.3 Screening Data

According to Sekaran & Bougie (2016), the data obtained through survey or questionnaire need to be edited such as handling blank response, categorization, entering data before continue to analysis. In this study, data screening is examined through analyze the general descriptive statistics such as frequency distribution to determine if any outlier data, normality and missing data found. In fact, the result of descriptive data shows that there are no data was missing from 379 survey questionnaires returned.

4.3.1 Missing Data

In this study, there are no missing data for the 379 respondent based on the SPSS analysis. Hence, the data proceed for the other analysis.

4.3.2 Normality Test

In this research, Q-Q plot was used to measure the normality test. Normal distribution of Q-Q plot should be aligned or near situated with the reference line. Graph below show the Q-Q plot for the variables. All the variable are in normal distribution and aligned with diagonal line. This is supported by Ford (2015) mentioned that if both sets of quantiles show normal distribution, then the points will roughly forming a straight line.

The Figure 4.1 to Figure 4.5 showed the result of normality test. The Q-Q plot results show that all the data are observations illustrate a straight line behaviour and close to the diagonal line, therefore the data is considered to be normally distributed.

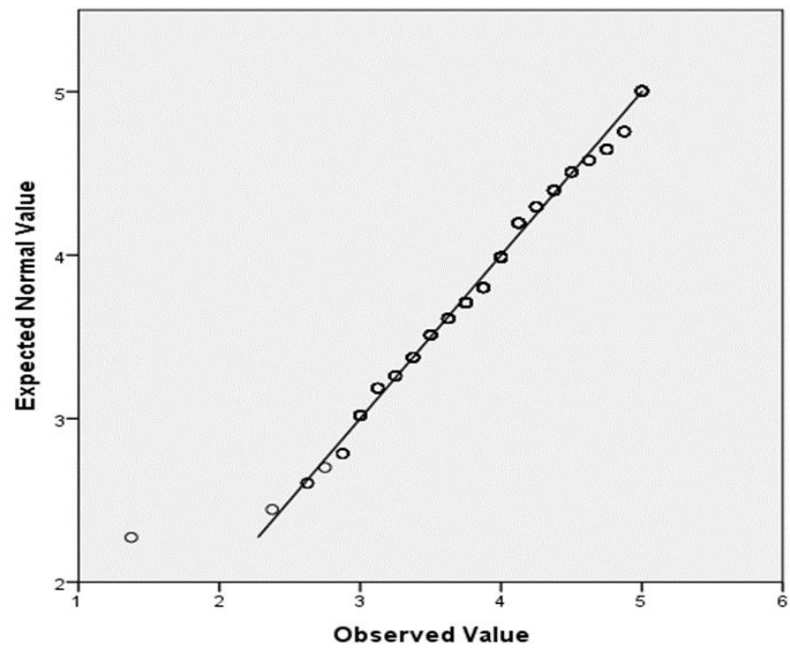


Figure 4.1
Normal Q-Q plot of Quality Assurance

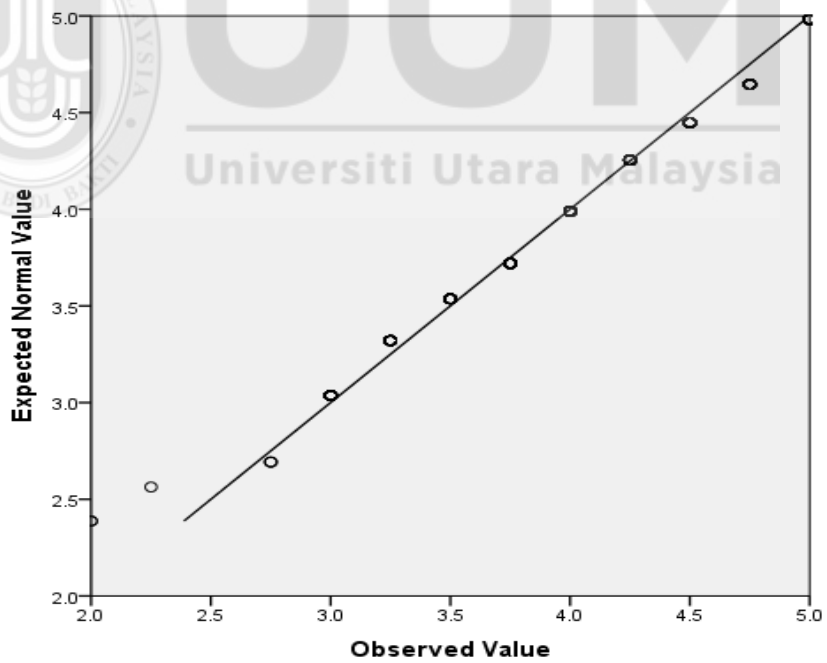


Figure 4.2
Normal Q-Q plot of Physical Facilities

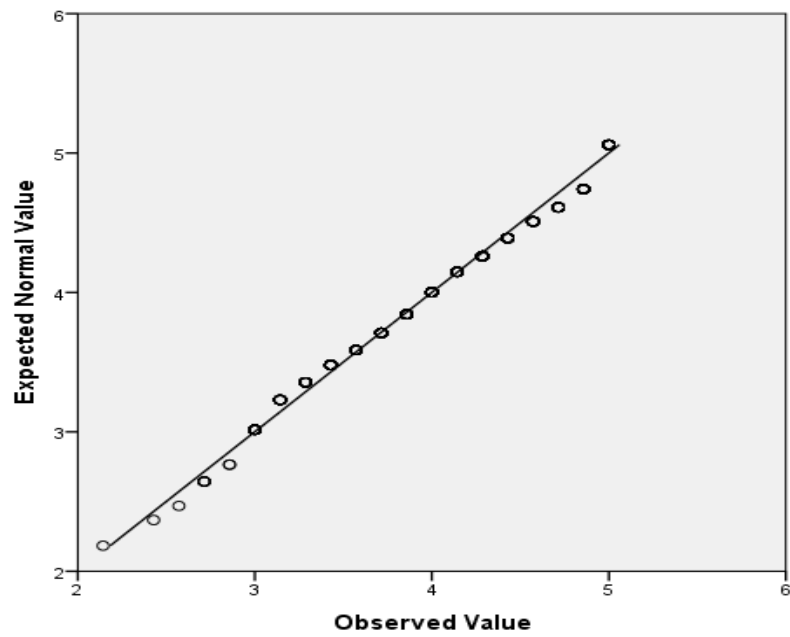


Figure 4.3
Normal Q-Q plot of Employee Commitment

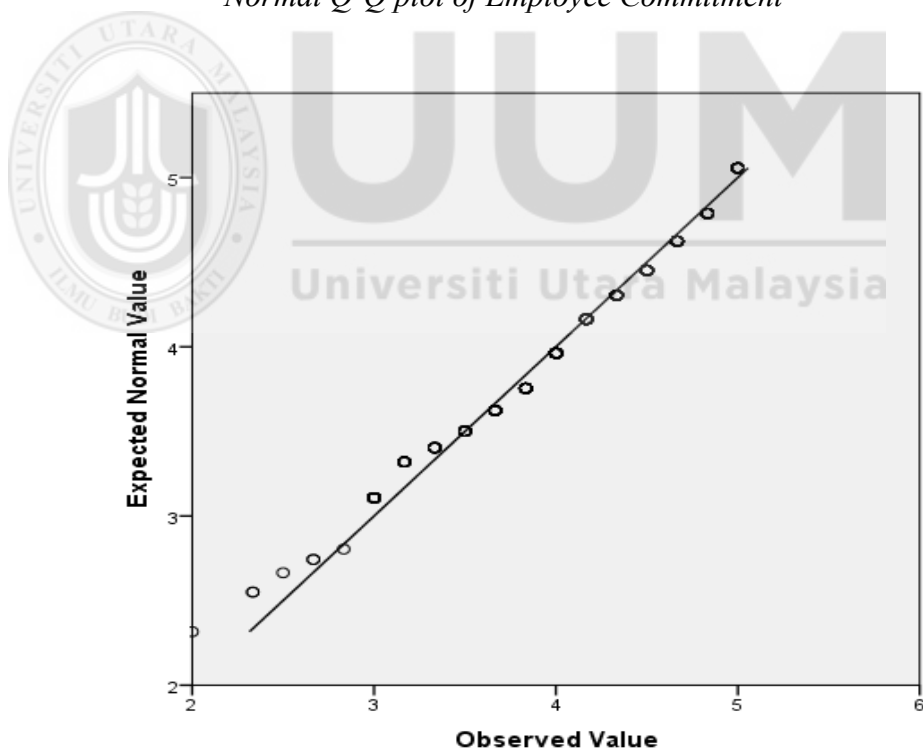


Figure 4.4
Normal Q-Q plot of Communication

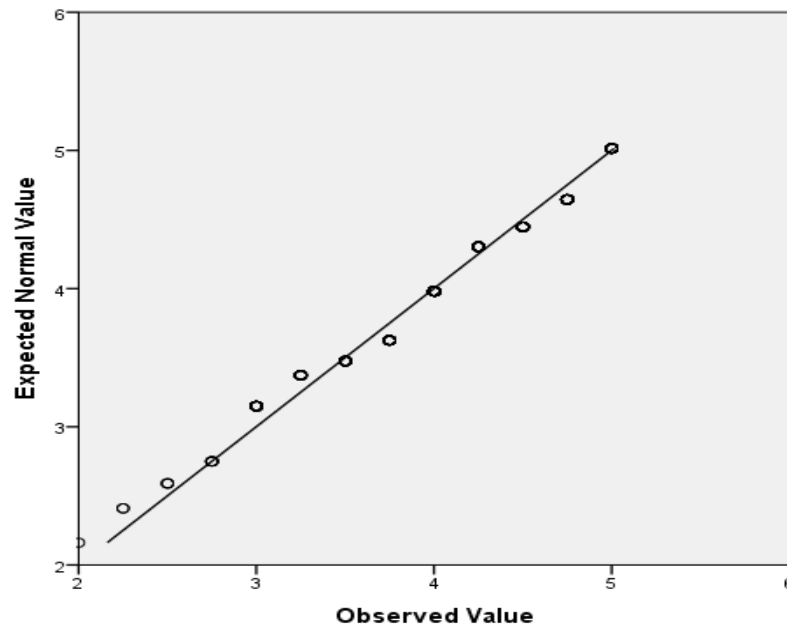


Figure 4.5
Normal Q-Q plot of Employee Competencies

4.4 Factor Analysis

According to He et al. (2013), factor analysis is a technique to reduce the number of variable into a fewer number of dimensions. In this study, factor analysis is measured by using principal component analysis. Tests like *Kaiser-Meyer-Olkin (KMO)* and *Barlett's Test of Sphericity* have been carried out to measure factor analysis. According to Andale (2017), KMO values between 0.8 to 1 indicate that the sampling is adequate while if the value is less than 0.5 indicate that sampling is not useful. KMO is important to measure the whether the data is suitable for factor analysis. Besides, Barlett's test of sphericity had to be significant as $\text{sig} < 0.05$ for factor analysis. This which means that values that less than 0.05 of significance level implies that factor analysis is useful for sampling. Not only this, eigenvalues and percentage variance also being discussed to identify the number of fundamental factor. The factor analysis for each variable will be discussed below.

4.4.1 Factor analysis of Quality Assurance

Based on the factor analysis for quality assurance, KMO value was 0.876 and Bartlett's Test has a significant value of $p=0.000$. This implies that KMO value is significant and can be used for factor analysis.

Table 4.3
KMO and Bartlett's test of Quality Assurance

KMO and Bartlett's Test	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.876
Bartlett's Test of Sphericity Approx. Chi-Square	1491.597
df	28
Sig.	.000

Table 4.4
Eigenvalues and Percentage Variance for Quality Assurance

Component	Total Variance Explained			Extraction Sums of Squared Loadings		
	Initial Eigenvalues			Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.525	56.562	56.562	4.525	56.562	56.562
2	.811	10.140	66.702			
3	.696	8.699	75.401			
4	.541	6.766	82.167			
5	.480	5.996	88.163			
6	.426	5.320	93.483			
7	.305	3.810	97.293			
8	.217	2.707	100.000			

Extraction Method: Principal Component Analysis.

Table 4.5
Matrix Components of Quality Assurance

Questions (Quality Assurance)	Loading Factor
Q1. There is a comprehensiveness of goal-setting process for quality within the childcare centre.	.788
Q2. There is a degree of comprehensiveness of quality plan within the childcare centre.	.771

Q3. Quality related training technical given to employees throughout the childcare centre.	.761
Q4. Training in the total quality concept throughout the childcare centre.	.784
Q5. Availability of resources for employee training in childcare centre.	.725
Q6. Effectiveness of quality circle or employee involvement type programs are implemented in the childcare centre.	.731
Q7. Amount of feedback provided to employees on their quality performance.	.747
Q8. Quality awareness building among employees is ongoing.	.707

The table above shows that all the items can be used for analysis. The results of factor analysis comprising 8 items have Eigen value is 4.525 with a cumulative value of 56.562%.

4.4.2 Factor analysis of Physical Facilities

Based on the factor analysis for physical facilities, KMO value was 0.767 and Bartlett's Test has a significant value of $p=0.000$. This implies that KMO value is significant and can be used for factor analysis.

Table 4.6
KMO and Bartlett's test of Physical Facilities

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.767
Bartlett's Test of Sphericity	Approx. Chi-Square	566.649
	df	6
	Sig.	.000

Table 4.7
Eigenvalues and Percentage Variance for Physical Facilities

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.610	65.260	65.260	2.610	65.260	65.260
2	.663	16.563	81.823			
3	.428	10.696	92.519			
4	.299	7.481	100.000			

Extraction Method: Principal Component Analysis.

Table 4.8
Matrix Components of Physical Facilities

Questions (Physical Facilities)	Loading Factor
Q1.The childcare centre have up-to-date equipment.	.816
Q2.The childcare centre physical facilities are visually appealing.	.867
Q3.Employee of childcare centre are well dresses and appear neat.	.709
Q4.The appearance of the physical facilities of childcare is in keeping with the types of service provided.	.831

The table above shows that all the items can be used for analysis. The results of factor analysis comprising 4 items have Eigen value is 2.610 with a cumulative value of 65.260%.

4.4.3 Factor analysis of Employee Commitment

Based on the factor analysis for employee commitment, KMO value was 0.891 and Bartlett's Test has a significant value of $p=0.000$. This implies that KMO value is significant and can used for factor analysis.

Table 4.9
KMO and Bartlett's test of Employee Commitment

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.891
Bartlett's Test of Sphericity	Approx. Chi-Square	1340.189
	df	21
	Sig.	.000

Table 4.10
Eigenvalues and Percentage Variance for Employee Commitment

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.271	61.011	61.011	4.271	61.011	61.011
2	.696	9.940	70.951			
3	.530	7.574	78.526			
4	.503	7.188	85.713			
5	.415	5.922	91.635			
6	.315	4.501	96.136			
7	.270	3.864	100.000			

Extraction Method: Principal Component Analysis.

Table 4.11
Matrix Components of Employee Commitment

Questions (Employee Commitment)	Loading Factor
Q1. I am willing to put a great deal of effort beyond that normally expected in order to help childcare centre be successful.	.748
Q2. I would accept almost any type of job assignment in order to keep working for childcare centre.	.804
Q3. I find that my value and childcare centre values are very similar.	.723
Q4. I am proud to tell others that I am part of this childcare centre.	.782

Q5. Childcare centre really inspires the very best in me in the way of job performance.	.841
Q6. I am extremely glad that I choose childcare centre to work for over others I was considering at the time I joined.	.796
Q7. For me, this is the best of all possible childcare centre for which to work.	.767

The table above shows that all the items can be used for analysis. The results of factor analysis comprising 7 items have Eigen value is 4.271 with a cumulative value of 61.011%.

4.4.4 Factor analysis of Communication

Based on the factor analysis for communication, KMO value was 0.853 and Bartlett's Test has a significant value of $p=0.000$. This implies that KMO value is significant and can used for factor analysis.

Table 4.12
KMO and Bartlett's test of Communication

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.853
Bartlett's Test of Sphericity	Approx. Chi-Square	1123.849
	df	15
	Sig.	.000

Table 4.13
Eigenvalues and Percentage Variance for Communication

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.684	61.394	61.394	3.684	61.394	61.394
2	.884	14.738	76.133			
3	.460	7.667	83.800			
4	.360	5.996	89.796			

5	.337	5.618	95.414		
6	.275	4.586	100.000		

Extraction Method: Principal Component Analysis.

Table 4.14
Matrix Components of Communication

Questions (Communication)	Loading Factor
Q1. I have been interact with each child in a warm and friendly way.	.795
Q2. I have been initiate and maintain respectful communication with each child.	.829
Q3. I have been communicate effectively to promote respect and professional teamwork.	.822
Q4. I have been communicate with families effectively to exchange information about each child and centre.	.805
Q5. I have the written information about the childcare centre's management which is readily available to families.	.747
Q6. I have received the written information about the childcare centre's management to staff.	.695

The table above shows that all the items can be used for analysis. The results of factor analysis comprising 6 items have Eigen value is 3.684 with a cumulative value of 61.394%.

4.4.5 Factor analysis of Employee Competencies

Based on the factor analysis for employee competencies, KMO value was 0.821 and Bartlett's Test has a significant value of $p=0.000$. This implies that KMO value is significant and can used for factor analysis.

Table 4.15

*KMO and Bartlett's test of Employee Competencies***KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.821
Bartlett's Test of Sphericity	Approx. Chi-Square	746.209
	df	6
	Sig.	.000

Table 4.16

*Eigenvalues and Percentage Variance for Employee Competencies***Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.875	71.864	71.864	2.875	71.864	71.864
2	.516	12.893	84.757			
3	.323	8.063	92.820			
4	.287	7.180	100.000			

Extraction Method: Principal Component Analysis.

Table 4.17

Matrix Components of Employee Competencies

Questions (Employee Competencies)	Loading Factor
Q1. I have the knowledge from every day experiences and formal education experience about childcare.	.778
Q2. I am able to manage several task at once, being able to set priorities and allocate time efficiently in order to meet deadlines in childcare centre.	.868
Q3. I am able to maintain energy level, motivating myself to perform, maintain positive attitude and responding appropriately to criticism in childcare centre.	.889
Q4. I am able to identify, prioritizing and solving problem in childcare centre.	.852

The table above shows that all the items can be used for analysis. The results of factor analysis comprising 6 items have Eigen value is 2.875 with a cumulative value of 71.864%.

4.5 Analysis Descriptive Statistics

Descriptive statistics is used to measure quantitative research such as demographic characteristics like gender, age, religion, ethnic group, education level and working experience level.

4.5.1 Profile of the Respondents

Tables below show the respondent profile through demographic analysis on respondents in this study.

Table 4.18
Gender of Respondents

Variable	Categories	Frequencies	Percent
Gender	Male	1	0.03
	Female	378	99.7
Total		379	

Table 4.3 above show the details of respondents gender that fill in the questionnaires.

The first part of demographic detail is male and female. Respondent tick the answer that most describing themselves, 1 for male and 2 for female. Based on the total number of 379 respondent with 100%, the results showed that mostly all the respondent were female which consists of 378 with 99.7% while there are only 1 male respondent with 0.3%. This shows that in childcare industry mostly their employee were female.

Table 4.19

Age of Respondent

Variable	Categories	Frequencies	Percent
Age	<25	199	52.5
	25-35	104	27.4
	36-45	42	11.1
	46-55	23	6.1
	>55	11	2.9
Total		379	100

Table 4.4 showed the age detail for the respondent in the survey. The respondents age which is <25 have the highest frequency of 199 with 52.5%. Next, the second highest were the age range of 25-35 respondent frequency of 104 with 27.4%, followed by age range 36-45, 46-55, >55 with the frequency and percentage of 42(11.1%), 23(6.1%) and 11(2.9%) respectively.

Table 4.20

Ethnic of the Respondents

Variable	Categories	Frequencies	Percent
Ethnic	Malay	349	92.1
	Chinese	18	4.7
	Indian	11	2.9
	Others	1	0.3
Total		379	100

Table 4.5 above show the ethnic group for the respondents. The majority of the respondents were Malay with 349 respondents with 92.1%. The second highest is Chinese ethnic group with the frequency of 18 and 4.7%. The rest followed by Indian and other with amount of 11 (2.9%) and 1 (0.3%) respectively.

Table 4.21
Religion of the Respondents

Variable	Categories	Frequencies	Percent
Religion	Muslim	351	92.6
	Buddhism	12	3.2
	Christianity	8	2.1
	Hinduism	8	2.1
Total		379	100

Table 4.6 above showed the religion of the respondents such as Muslim, Buddhism, Christianity and Hinduism. Muslim achieved the highest frequency of 351 with 92.6%. The second highest is Buddhism with the 12 respondent and 3.2%. The rest followed by Christianity and Hinduism with the same frequency and percentage of 8 and 2.1% respectively.

Table 4.22
Education level of the Respondents

Variable	Categories	Frequencies	Percent
Education	PMR	20	5.3
	SPM	178	47
	STPM	47	12.4
	Others	134	35.4
Total		379	100

Table 4.7 above showed the different education level for the respondents such as PMR, SPM, STPM and others. Table above showed the majority of the respondent were SPM holder with the frequency of 178 and 47%. The second majority were the others categories which included diploma, certificate, degree holder. It consists of 134 of respondent with 35.4%. The rest followed by STPM and PMR with the frequency and percentage of 47 (12.4%) and 20 (5.3%) respectively.

Table 4.23

Working Experience of the Respondents

Variable	Categories	Frequencies	Percent
Working Experience	0 - 5	272	71.8
	6 - 10	61	16.1
	11 - 15	30	7.9
	>15	16	4.2
Total		379	100

Table 4.8 above showed the years of working experience for respondent in the survey.

Table above showed the majority of respondent were 0 – 5 years of working experience with frequency of 272 and 71.8%. The second majority were 6 – 10 years with amount of 61 and 16.1%. The rest followed by 11 – 15 years and >15 with the amount of 30 (7.9%) and 16 (4.2%) respectively.

4.6 Mean and Standard Deviation

In this study, mean and standard deviation has been measured and used for the analysis. According to Sekaran & Bougie (2016), mean is the average rate of central tendency while standard deviation estimate the dispersion for interval and ratio scaled data. Mean and standard deviation used to measure the relationship between the variables.

Table 4.24

Mean and Standard Deviation of Variables

Variable	Mean	Standard Deviation
Quality Assurance	3.9446	0.57259
Physical Facilities	4.0864	0.62012
Employee Commitment	3.9812	0.61596
Communication	4.0708	0.60121
Employee Competency	4.0264	0.63903

Table 4.9 showed the mean and standard deviations of all variables include dependent and independent variables for this study. The physical facilities variable has the highest

mean value of 4.0864 while quality assurance variable has the lowest mean value which is 3.9446.

4.6.1 Mean and Standard Deviation of Quality Assurance

The mean and standard deviation of the dependent variable “Quality Assurance” is shown in Table 4.10 below. The most dominant factor in measuring Quality Assurance value is the item “Quality related training technical given to employees throughout the childcare centre.” and “Training in the total quality concept throughout the childcare centre.” which have the equal mean value of 4.00. Besides that, the item of “There is a comprehensiveness of goal-setting process for quality within the childcare centre.” has the lowest mean value which is 3.87. Average of Quality Assurance has mean value of 3.9446.

Table 4.25

Mean and Standard Deviation of Quality Assurance – Overall (N=379)

Items	Mean	Standard Deviation
There is a comprehensiveness of goal-setting process for quality within the childcare centre.	3.87	.729
There is a degree of comprehensiveness of quality plan within the childcare centre.	3.90	.737
Quality related training technical given to employees throughout the childcare centre.	4.00	.823
Training in the total quality concept throughout the childcare centre.	4.00	.807
Availability of resources for employee training in childcare centre.	3.99	.740
Effectiveness of quality circle or employee involvement type programs are implemented in the childcare centre.	3.94	.730
Amount of feedback provided to employees on their quality performance.	3.92	.772
Quality awareness building among employees is ongoing.	3.94	.754
Average of Quality Assurance	3.9446	.57259

4.6.2 Mean and Standard Deviation of Physical Facilities

The mean and standard deviation of the independent variable “Physical Facilities” is shown in Table 4.11 below. The most dominant factor in measuring Physical Facilities value is the item “Employee of childcare centre are well dresses and appear neat.” which have the equal mean value of 4.26. Besides that, the item of “The childcare centre have up-to-date equipment.” has the lowest mean value which is 3.99. Average of Physical Facilities has mean value of 4.09.

Table 4.26

Mean and Standard Deviation of Physical Facilities – Overall (N=379)

Items	Mean	Standard Deviation
The childcare centre have up-to-date equipment.	3.99	.816
The childcare centre physical facilities are visually appealing.	4.01	.777
Employee of childcare centre are well dresses and appear neat.	4.26	.746
The appearance of the physical facilities of childcare is in keeping with the types of service provided.	4.09	.736
Average of Physical Facilities	4.09	.620

4.6.3 Mean and Standard Deviation of Employee Commitment

The mean and standard deviation of the independent variable “Employee Commitment” is shown in Table 4.12 below. The most dominant factor in measuring Employee Commitment value is the item “I am willing to put a great deal of effort beyond that normally expected in order to help childcare centre be successful.” which have the equal mean value of 4.16. Besides that, the item of “I find that my value and childcare centre values are very similar.” has the lowest mean value which is 3.74. Average of Employee Commitment has mean value of 3.98.

Table 4.27

Mean and Standard Deviation of Employee Commitment – Overall (N=379)

Items	Mean	Standard Deviation
I am willing to put a great deal of effort beyond that normally expected in order to help childcare centre be successful.	4.16	.764
I would accept almost any type of job assignment in order to keep working for childcare centre.	4.04	.739
I find that my value and childcare centre values are very similar.	3.74	.827
I am proud to tell others that I am part of this childcare centre.	4.04	.807
Childcare centre really inspires the very best in me in the way of job performance.	4.01	.754
I am extremely glad that I choose childcare centre to work for over others I was considering at the time I joined.	3.96	.807
For me, this is the best of all possible childcare centre for which to work.	3.92	.832
Average of Employee Commitment	3.98	.616

4.6.4 Mean and Standard Deviation of Communication

The mean and standard deviation of the independent variable “Communication” is shown in Table 4.13 below. The most dominant factor in measuring Communication value is the item “I have been initiate and maintain respectful communication with each child.” which have the equal mean value of 4.27. Besides that, the item of “I have received the written information about the childcare centre’s management to staff.” has the lowest mean value which is 3.82. Average of Communication has mean value of 4.07.

Table 4.28

Mean and Standard Deviation of Communication – Overall (N=379)

Items	Mean	Standard Deviation
I have been interact with each child in a warm and friendly way.	4.25	.711
I have been initiate and maintain respectful communication with each child.	4.27	.734
I have been communicate effectively to promote respect and professional teamwork.	4.19	.693
I have been communicate with families effectively to exchange information about each child and centre.	4.04	.806
I have the written information about the childcare centre's management which is readily available to families.	3.86	.838
I have received the written information about the childcare centre's management to staff.	3.82	.837
Average of Communication	4.07	.601

4.6.5 Mean and Standard Deviation of Employee Competencies

The mean and standard deviation of the independent variable “Employee Competencies” is shown in Table 4.14 below. The most dominant factor in measuring Employee Competencies value is the item “I am able to maintain energy level, motivating myself to perform, maintain positive attitude and responding appropriately to criticism in childcare centre” which have the equal mean value of 4.06. Besides that, the item of “I am able to manage several task at once, being able to set priorities and allocate time efficiently in order to meet deadlines in childcare centre” has the lowest mean value which is 3.98. Average of Employee Competencies has mean value of 4.03.

Table 4.29

Mean and Standard Deviation of Employee Competencies – Overall (N=379)

Items	Mean	Standard Deviation
I have the knowledge from every day experiences and formal education experience about childcare.	4.02	.761
I am able to manage several task at once, being able to set priorities and allocate time efficiently in order to meet deadlines in childcare centre.	3.98	.770
I am able to maintain energy level, motivating myself to perform, maintain positive attitude and responding appropriately to criticism in childcare centre.	4.06	.734
I am able to identify, prioritizing and solving problem in childcare centre.	4.04	.755
Average of Employee Competencies	4.03	.639

4.7 Statistical Analysis Inference

In this study, inference statistical analysis used to analyze the findings through test method like Person's Correlation and regression analysis to test the hypotheses in order to achieve the research objectives. The aim of using Pearson Correlation Analysis is to gain view of the relationship between quality assurance, physical facilities, employee commitment, employee competencies and communication. On the other hand, Multiple Regression Analysis was used to investigate the relationship of direct hypotheses in the study.

4.7.1 Pearson Correlation Analysis

Pearson correlation analysis is to measure the relationship between two variables. According to Reimann, Filzmoser, Garrett, & Dutter (2008), Pearson correlation methods normally result between -1 and $+1$ to show the relation of two variable. To be precise, a correlation of ± 0.5 implies a significant relationship. In

addition according to Sulaiman et al. (2013) mentioned that if correlation can be categories with small, medium and strong if the correlation is between 0.1 to 0.29, 0.3 to 0.49 and 0.50 to 1.00 respectively. Table 4.30 below shows the result of Pearson Correlation Analysis.

Table 4.30
Result of Pearson Correlation Analysis

	Correlations				
	Quality Assurance	Physical Facilities	Employee Commitment	Communication	Employee Competencies
Quality Assurance	1	.645**	.629**	.555**	.562**
Physical Facilities	.645**	1	.684**	.596**	.608**
Employee Commitment	.629**	.684**	1	.753**	.725**
Communication	.555**	.596**	.753**	1	.781**
Employee Competencies	.562**	.608**	.725**	.781**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Based on the correlation result as table 4.30 above, all independent variable physical facilities, employee commitment, communication and employee competencies illustrate the value of r is more than 0.5 in which the physical facilities of the variable r was 0.645, and employee commitment, communication and employee competencies with variable r were 0.629, 0.555, 0.562 respectively. All the independent variable show strong correlation with quality assurance.

4.7.2 Multiple Regression Analysis

Multiple regression analysis has been used to identify the connection for more than two variables in the study. The result of multiple regression analysis can decide whether which independent variable more significant toward quality assurance. Tables below shows the result of multiple regression test.

Table 4.31
Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.701 ^a	.492	.486	.41046

The coefficient of determination (R^2) can be explained as outcome from regression and predict the relations with variable. The purpose of R^2 has explained the changes of independent variable such as physical facilities, employee commitment, communication, and employee competencies. Table 4.31 shows the model of summary of multiple regression analysis. The analysis shows that the value of adjusted R^2 was 0.486. This proved that physical facilities, employee commitment, communication and employee competencies were elaborated 48.6% of changes in the quality assurance as tested in the model. Thus, it proven that it had 48.6% of influence to quality assurance.

Table 4.32
Regression Analysis

		Coefficients ^a			t	Sig.
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	0.99	0.161		6.164	0
	Physical Facilities	0.344	0.048	0.372	7.166	0
	Employee Commitment	0.233	0.06	0.251	3.897	0
	Communication	0.061	0.062	0.064	0.973	0.331
	Employee Competencies	0.093	0.057	0.103	1.631	0.104

a. Dependent Variable: Quality Assurance

Table 4.32 shows the one way ANOVA while Table 4.33 shows the result of Regression Analysis of Coefficient tests. The overall results of the multiple regression analysis showed that all independent variable have a relationship with the dependent variable when $F=90.399$ and $p=0.000$ at the Table 4.32. The result of this test also indicated that all independent variable had positive beta coefficient value as physical facilities, employee commitment, communication and employee competencies have 0.372, 0.251, 0.064 and 0.103 respectively.

From the result, it also can be identified that not all independent variable showed a significant relationship as the significant level, p value is in between 0.01 and 0.05. This is supported by physical facilities ($p=0.000$), employee commitment ($p=0.000$), communication ($p=0.331$) and employee competencies (0.104).

4.8 Summary of Hypotheses Testing

The result summary of hypothesis testing shown in the Table 4.34 below.

Table 4.33

Summary of Hypothesis Testing

	DESCRIPTION OF HYPOTHESIS	RESULT
H1	There is a significant relationship between Physical Facilities and Quality Assurance among childcare employees in Selangor.	ACCEPTED
H2	There is a significant relationship between Employee Commitment and Quality Assurance among childcare employees in Selangor.	ACCEPTED
H3	There is a significant relationship between Communication and Quality Assurance among childcare employees in Selangor.	ACCEPTED
H4	There is a significant relationship between Employee Competencies and Quality Assurance among childcare employees in Selangor.	ACCEPTED

4.9 Summary of the Chapter

This chapter describes the findings of the analysis. All of the data were analyzed by using SPSS version 22 and involves the analysis of demographic characteristics, reliability analysis, factor analysis, and hypothesis testing. This chapter intend to shoes the relationship between the factors influence quality assurance among childcare employees in Selangor having a positive relationship. In addition, the findings and analysis of this chapter is to identify and determine the relationship among dependent variable, independent variable and hypotheses.

CHAPTER 5

DISCUSSION

5.0 Introduction

This chapter will discuss the findings of the study. In this chapter, it comprises of few section which are discussion, limitation of the study, recommendations and conclusion. First section explains the findings according to objectives of the study. Next, second section describes the contributions of the current study. The third section provide the limitation of study and fourth section gives the recommendation and suggestion for future studies. Lastly, the chapter will make conclusion about this study.

5.1 Discussion of the Findings

The section will have the discussion on the factors influence quality assurance among childcare employee. There are four objectives in this study, such as:

1. To investigate the relationship between Physical Facilities and Quality Assurance among childcare employees in Selangor.
2. To identify the relationship between Employee Commitment and Quality Assurance among childcare employees in Selangor.
3. To examine the relationship between Communication and Quality Assurance among childcare employees in Selangor.
4. To examine the relationship between Employee Competencies and Quality Assurance among childcare employees in Selangor.

5.2 Summary of Findings

5.2.1 There is a relationship between Physical Facilities and Quality Assurance

The first objective is to investigate the relationship of Physical Facilities and Quality Assurance among childcare employees in Selangor. Therefore, the first hypothesis is used to identify whether there is a relationship between physical facilities and quality assurance. According to the correlation analysis, it is proven that there are strong and positive relationship between physical facilities and quality assurance. This implies that if the childcare provider wish to ensure the quality assurance in childcare centres, the quality assurance in terms of physical facilities should be consider to gain continuous improvement for the centre.

The result of the study are aligned with the previous studies that examine the relationship between physical facilities and quality assurance. For instance, according to Musa & Ahmad@Baharum (2012), the findings showed that infrastructural development and physical environment of the higher institutions are significant in the quality assurance. Besides, referring to Ndirangu & Udoto (2011), the study conducted to measure the quality of learning facilities and environment at Kenyan public universities showed that there are significant relationship between learning facilities and quality although the quality of the universities facilities still didn't met enough quality. On the other hand, research from Medhat, Samy, Wahed, & Mohamed (2008) study on medical equipment quality assurance for healthcare facilities showed that it is necessary to making continuous improvement process towards system for overall quality assurance standard.

5.2.2 There is a relationship between Employee Commitment and Quality Assurance

The second objective is to investigate the relationship of Employee Commitment and Quality Assurance among childcare employees in Selangor. Therefore, the second hypothesis is used to identify whether there is a relationship between employee commitment and quality assurance. According to the correlation analysis, it is proven that there are strong and positive relationship between employee commitment and quality assurance. This implies that employee commitment is important as it helps to improve the performance and quality of childcare. Employee commitment can be improve if the childcare centre provide professional development, training, communication and other that lead to their satisfaction and create loyalty in employees.

The result of the study are aligned with the previous studies that examine the relationship between employee commitment and quality assurance. For instance, research from Gowen, Mcfadden, Hoobler, & Tallon (2006) identified the relationship of healthcare quality practice and employee commitment in U.S hospitals and it is proven that quality program are highly associated with employee commitment. Besides, research from Schalk & Van Dijk (2005) implied that there are significant relationship between employee commitment and quality management based on employee behavior with their organizations.

In addition, research from Elmadağ, Ellinger, & Franke (2008) proven that frontline service employee commitment improved performances in service quality context. Next, according to Sharma, Tak, Kong, & Kingshott (2015) pointed out internal service quality has a positive relationship with the influence factor such as employee satisfaction, commitment and employee well-being.

5.2.3 There is a relationship between Communication and Quality Assurance

The third objective is to investigate the relationship of Communication and Quality Assurance among childcare employees in Selangor. Therefore, the third hypothesis is used to identify whether there is a relationship between communication and quality assurance. According to the correlation analysis, it is proven that there are strong and positive relationship between communication and quality assurance. In childcare, communication is important to bring the children development in terms of cognitive, language and literacy. Not only, this communication in childcare also crucial for employee to reduce misunderstanding and thus will increase motivation, employee morale and employee productivity.

The result of the study are aligned with the previous studies that examine the relationship between communication and quality assurance. One of the research from Ghazvini & Readdick (1994) shows that communication is getting importance relative with higher frequency of communication in childcare. The result proven that there are positive relationship between frequency of parent caregiver communication and quality of childcare. Besides, research from Pinto, Pessanha, & Aguiar (2013) examine the effect of home environment and center based childcare quality on child communication, language and literacy shows that positive relationship between childcare quality on child communication, language and literacy.

In addition, research from Thong, Mok, & Loke (2010), communication play important role between doctor and patient. The findings proven that communication important as part of quality assurance in medical field.

5.2.4 There is a relationship between Employee Competencies and Quality Assurance

The fourth objective is to investigate the relationship of Employee Competencies and Quality Assurance among childcare employees in Selangor. Therefore, the fourth hypothesis is used to identify whether there is a relationship between employee competencies and quality assurance. According to the correlation analysis, it is proven that there are strong and positive relationship between employee competencies and quality assurance. Employee competencies is important as it act as the role of providing quality to the children. However, there are lack of quality staff due to the low wages and high turnover rate in childcare industry. Therefore, childcare providers are advised to increase the benefit of employees such as compensation, remuneration, professional development and others to retain quality staff.

The result of the study are aligned with the previous studies that examine the relationship between employee commitment and quality assurance. According to the research from Sava, Borca, & Danciu (2014) that argued the validation of competencies in higher education to ensure quality assurance model. Besides, in terms of engineering education, according to the research from Woollacott (2009) indicate that graduate competencies in Quality Assurance is interrelated with engineering education.

In addition, referring to Cheung (2015) identified the relationship between professional competencies and external quality assurance in higher education is proven that it is important for professional to have competencies in quality assurance to be useful in long run. Next, there are research findings showed that there are significant relationship of administrator competencies and internal quality assurance at school level in Thailand. (Thanomwan & Dhatthakan, 2014). On the other hand, study from

Wu, Tsai, Hsiung, & Chen (2015) investigated the relationship between employee service competencies and customer service quality proven that there are positive relationship between both reliability and assurance of service quality dimensions and interpersonal service competencies of the frontline employee.

5.3 Implication of Research

From this study, there are many implication that can be identified and contribute to the researcher and practitioners in terms of theoretical and practical implications. As discussed in the study, there are limited research that study on factors influence childcare quality assurance in Malaysia. This can contribute as a sight or new perspective on factors influence quality assurance in childcare industry. This study will provide an insight toward not only scholars but also childcare provider, government as discussed in below.

5.3.1 Theoretical Implications

From the theoretical implications, this study proven that there are significant relationship between the factors (physical facilities, employee commitment, employee competencies and communication) and quality assurance. As suggested in theoretical framework, the study also provides empirical support to prove the positive relationship between all the factor and quality assurance are interrelated.

In addition, the current research also contribute the knowledge involving the importance of physical facilities, employee commitment, employee competencies and communication dimension to predict quality assurance level. Generally, mostly of the past studies used either one of the physical facilities, employee commitment, employee competencies or communication in the studies to test the relationship with quality assurance.

On the other hand, this study will help to increase the understanding of the factors influencing quality assurance among childcare employees as in the Malaysia context. Specifically, according to the previous studies, this might be the considered local studies that examine quality assurance level of childcare employees through few factors in Malaysia.

Moreover, this study also agreed with Total Quality Management theory. This research practically supported Total Quality Management which involves continual improvement, communication, employee involvement and others to improve the overall quality assurance in childcare centres.

5.3.2 Practical Implications

On the other hand, from the practical implications, this study contributes to the childcare provider and government policy makers. Basically, the study provides an approach of the factors such as physical facilities, employee commitment, employee competencies and communication will improve quality assurance level among childcare employees in Malaysia. Importantly, the childcare provider can apply the outcome from the study to improve the quality assurance level of childcare employees.

Generally, the findings of the result will help the caregiver or childcare provider to understand the importance of physical facilities, employee commitment, employee competencies will improve the quality assurance of the childcare employees in order to reduce the unnecessary incident that happened such as child abuse, death and so on.

Thus, the caregiver or childcare provider can apply and develop an overall quality assurance plan to improve the factors (physical facilities, employee commitment, employee competencies and communication). For instance, childcare

centre can improve the physical facilities such as play equipment for physical activity to reduce obesity level and healthy lifestyle as suggested from past studies. Second, communication is important to improve the relationship between parties such as employee and supervisor. Besides, employee commitment and employee competencies is important as it improve the overall quality of the childcare. This can be explained by providing training, recognition and others for employee as shown in the previous and existing studies.

Furthermore, this study provides an insight and guidance for government policy makers to develop a quality ECCD for children less than four years. Moreover, the development of quality assurance in childcare not only increase the quality assurance level of childcare but also improve the country economic.

To conclude, childcare provider should make efforts to improvise physical facilities, employee commitment, employee competencies, and communication in childcare centre to improve the quality level. This research provide an opportunity for childcare provider to know the factors influenced quality assurance among childcare employees in Selangor.

5.4 Limitation and Future of Research

There are some limitation is found in this study. The limitation of research is due to reason where researcher unable to control although the research provide and contribute insight for the study.

First, the limitation of this study is the location of the research conducted. This study focus on collecting data in childcare employee at Selangor state. Future research can include childcare employee in all the state in Malaysia or other country. This is because different state or country may have different quality assurance level as this

study only represent childcare employee in Selangor. The result might have different that cannot be assume to be the same as respondent might response differently.

Moreover, the limitation of the research is where mostly of the findings identified that the respondents were Malay as compared to Chinese and Indian. Generally, the data should have equal ethnic groups to ensure the generalizability of the data. Therefore, future research can be conducted by having similar ethnic group of respondent to measure whether any difference in the result.

Besides, this study is using quantitative method such as questionnaire for survey. Future studies can be made in qualitative method to have a better understanding of quality assurance based on the depth of interview with respondent.

In addition, there are limitation according to analytics tool used to analyze the data. In current study, SPSS were used to get the findings. Future research might use PLS software as it considered better statistical approaches and advanced analytics tool.

Lastly, future research can include or explore more variable which can be contribute to the development of quality assurance level. It also can adding moderator and mediator to furnish the research framework toward a better model.

5.5 Conclusion

The main objective of this research is to identify and examine the relationship influences quality assurance among childcare employee in Selangor, Malaysia. The findings of current research proven that there are positive relationship on factors influence quality assurance. Precisely, this research identified the relationship of physical facilities, employee commitment, employee competencies, communication and quality assurance among childcare employee in Selangor, Malaysia. In fact, the

existing study was developed due to limited studies or research in relevant literature related to relationship of factors influence quality assurance in childcare industry.

From the findings, the hypothesis framework was proven positively significant. There are studies that measure on quality assurance. Quality assurance are important to contribute continuous improvement and quality in organization. Some of the measurement scale provided to measure quality assurance in childcare such as (Rowe, 2006; Simon et al., 2016). To conclude, the better of physical facilities, employee commitment, employee competencies and communication, the higher the quality assurance of childcare.

Therefore, the childcare provider or policy maker should implement or develop a better quality assurance model in order to improve the quality of childcare through better facilities in the centre, training and education level of the employee to improve the competency level, improve communication between employer and employee to lead better satisfaction and higher employee commitment. All this will helps to improve the quality of childcare through the implementation of quality assurance in childcare centre.

REFERENCES

- Abd-Latif, R., Mohd Nor, M., Omar-Fauzee, M. S., & Ahmad, A. R. (2017). Influence of Recreational Facilities among Adolescents towards Leisure Time Physical Activity (LTPA). *Asian Journal of Environment-Behaviour Studies*, 2(4), 65. <https://doi.org/10.21834/aje-bs.v2i4.211>
- Abdullah, N., & Mohamad, N. (2016). University Recreational Facilities Service Quality and Students' Physical Activity Level. *Procedia - Social and Behavioral Sciences*, 224, 207–212. <https://doi.org/10.1016/j.sbspro.2016.05.443>
- Adamson, P. (2008). The childcare transition. *Innocenti Report Card*.
- Ahmad, N., Iqbal, N., Javed, K., & Hamad, N. (2014). Impact of Organizational Commitment and Employee Performance on the Employee Satisfaction. *International Journal of Learning, Teaching and Educational Research*, 1(1), 84–92.
- Albdour, A. A., & Altarawneh, I. I. (2014). Employee engagement and organizational commitment: Evidence from Jordan. *International Journal of Business*, 19(2), 192–212.
- Ali, I., Rehman, K., & Ali, S. (2010). Corporate social responsibility influences, employee commitment and organizational performance. *African Journal of ...*, 4(12), 2796–2801. <https://doi.org/10.1007/s10551-010-0492-3>
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1–18. <https://doi.org/10.1111/j.2044-8325.1990.tb00506.x>
- Amaral, A., & Rosa, M. J. (2010). Recent trends in quality assurance. *Quality in Higher Education*, 16(1), 59–61. <https://doi.org/10.1080/13538321003679515>
- Andale. (2012). Pearson Correlation: Definition and Easy Steps for Use.
- Andale, S. (2017). Kaiser-Meyer-Olkin (KMO) Test for Sampling Adequacy.
- Anderson, J. C., & Rungtusanatham, M. (1994). A THEORY OF QUALITY MANAGEMENT UNDERLYING THE DEMING MANAGEMENT

- METHOD. *Academy of Management Review*, 19(3), 472–509.
<https://doi.org/10.5465/AMR.1994.9412271808>
- Argenti, P. A. (1996). Corporate communication as a discipline: Toward a definition. *Management Communication Quarterly*, 10(1), 73–97.
<https://doi.org/10.1177/0893318996010001005>
- Armitage, E. G., Godzien, J., Alonso-Herranz, V., López-Gonzálvez, Á., & Barbas, C. (2015). Missing value imputation strategies for metabolomics data. *Electrophoresis*, 36(24), 3050–3060. <https://doi.org/10.1002/elps.201500352>
- Arukesamy, K. (2018, March 11). Call to provide childcare centres. Retrieved April 9, 2018, from <http://www.thesundaily.my/news/2018/03/12/call-provide-childcare-centres>
- Becker, T. E., Billings, R. S., Eveleth, D. M., & Gilbert, N. L. (1996). FOCI AND BASES OF EMPLOYEE COMMITMENT: IMPLICATIONS FOR JOB PERFORMANCE. *Academy of Management Journal*, 39(2), 464–482.
<https://doi.org/10.2307/256788>
- Beglar, D., & Nemoto, T. (2014). Developing Likert-scale questionnaires. In *JALT2013 Conference Proceedings* (pp. 1–8).
- Belsky, J. (2006). Early childcare and early child development: Major findings of the NICHD study of early childcare. *European Journal of Developmental Psychology*, 3(1), 95–110. <https://doi.org/10.1080/17405620600557755>
- Berdrow, I., & Evers, F. T. (2010). Bases of competence: An instrument for self and institutional assessment. *Assessment and Evaluation in Higher Education*, 35(4), 419–434. <https://doi.org/10.1080/02602930902862842>
- Beynon, J. (1997). *Physical Facilities for education: What planners need to know. Fundamental of Education Planning* - 57.
- Blau, G. (1985). The measurement and prediction of career commitment The measurement and prediction of career commitment. *Journal of Occupational Psychology*, 58(December 1985), 277–288. <https://doi.org/10.1111/j.2044-8325.1985.tb00201.x>
- BN claims success in boosting women’s income and positions. (2018, April 1).

Retrieved April 9, 2018, from
<http://www.themalaymailonline.com/malaysia/article/bn-claims-success-in-boosting-womens-income-and-positions>

Boselie, P., & Veld, M. (2012). Human Resource Management and Commitment in Dutch Child Day Care. *Administration in Social Work, 36*(2), 189–211.
<https://doi.org/10.1080/03643107.2011.566305>

Boyatzis, R. E. (2009). Competencies as a behavioral approach to emotional intelligence. *Journal of Management Development, 28*(9), 749–770.
<https://doi.org/10.1108/02621710910987647>

Brace, I. (2008). *Questionnaire design. how to plan, structure and write survey material for effective market research.*

Buckley, F. J., & Poston, R. (1984). Software Quality Assurance. *IEEE Transactions on Software Engineering, SE-10*(1), 36–41.
<https://doi.org/10.1109/TSE.1984.5010196>

Burchinal, M. R., Roberts, J. E., Nabors, L. A., Bryant, D. M., & Burchinal, P. (1996). Quality of Center Childcare and Infant Cognitive and Language Development. *Child Development, 67*(2), 606–620.
<https://doi.org/10.1111/j.1467-8624.1996.tb01754.x>

Burmeister, E., & Aitken, L. M. (2012). Sample size: How many is enough? *Australian Critical Care, 25*(4), 271–274.
<https://doi.org/10.1016/j.aucc.2012.07.002>

Burns, T. W., O'Connor, D. J., & Stocklmayer, S. M. (2003). Science communication: A contemporary definition. *Public Understanding of Science.*
<https://doi.org/10.1177/09636625030122004>

Cao, Y., & Li, X. (2014). Quality and quality assurance in Chinese private higher education. *Quality Assurance in Education, 22*(1), 65–87.
<https://doi.org/10.1108/QAE-09-2011-0061>

Cárcamo, R. A., Vermeer, H. J., De la Harpe, C., van der Veer, R., & van IJzendoorn, M. H. (2014). The Quality of Childcare in Chile: Its Stability and International Ranking. *Child and Youth Care Forum, 43*(6), 747–761.
<https://doi.org/10.1007/s10566-014-9264-z>

- Cardon, P. W. (2008). Frontline employee communication. *Business Communication Quarterly*, 71(2), 232. <https://doi.org/10.1177/1080569908317318>
- Cardy, R. L., & Selvarajan, T. T. (2006). Competencies: Alternative frameworks for competitive advantage. *Business Horizons*, 49(3), 235–245. <https://doi.org/10.1016/j.bushor.2005.09.004>
- Cartier, F. A., & Hanwood, K. A. (1953). ON DEFINITION OF COMMUNICATION. *Journal of Communication*, 3(2), 71–75. <https://doi.org/10.1111/j.1460-2466.1953.tb01076.x>
- Cheema, J. R. (2014). A review of missing data handling methods in education research. *Review of Educational Research*, 0034654314532697. <https://doi.org/10.3102/0034654314532697>
- Cheung, J. C. M. (2015). Professionalism, profession and quality assurance practitioners in external quality assurance agencies in higher education. *Quality in Higher Education*, 21(2), 151–170. <https://doi.org/10.1080/13538322.2015.1051795>
- Collier, J., & Esteban, R. (2007). Corporate social responsibility and employee commitment. *Business Ethics: A European Review*, 16(1), 19–33. <https://doi.org/10.1111/j.1467-8608.2006.00466.x>
- Convenience sampling - Research Methodology. (n.d.). Retrieved May 7, 2018, from <https://research-methodology.net/sampling-in-primary-data-collection/convenience-sampling/>
- Cooper, D., & Schindler, P. (2014). Business Research Methods. *Social Research*, (12th Edition), 792. Retrieved from <http://www.amazon.com/Business-Research-Methods-Alan-Bryman/dp/0199284989%5Cnhttp://130.209.236.149/headocs/31businessresearch.pdf>
- Costes, N., Edinsel, K., Holländer, K., Jacobsson, G., Jakopovi, I. F., & Kearney, M. (2010). *Quality Assurance in Postgraduate Education. Lifelong Learning*.
- Covin, J. G., & Wales, W. J. (2012). The Measurement of Entrepreneurial Orientation. *Entrepreneurship: Theory and Practice*, 36(4), 677–702. <https://doi.org/10.1111/j.1540-6520.2010.00432.x>

- Cpsi. (2009). *The Safety Competencies*. Canadian Patient Safety Institute.
<https://doi.org/10.1136/bmjqs-2011-000148>
- Crosby, P. (1989). The TQM Magazine Crosby talks quality. *The TQM Magazine International Journal of Commerce and Management Iss The TQM Magazine*, 1(5), 378–386. <https://doi.org/10.1108/eb059474>
- Current Population Estimates, Malaysia, 2014 - 2016. (n.d.). Retrieved May 7, 2018, from <https://www.dosm.gov.my/v1/index.php>
- Dale, B. G., Wu, P. Y., Zairi, M., Williams, A. R. T., der Wiele, T., d, D. B. G. ., ... T.c, V. D. W. (2001). Total quality management and theory: An exploratory study of contribution. *Total Quality Management*, 12(4), 439–449.
<https://doi.org/10.1080/09544120123930>
- Das, A., Kumar, V., & Kumar, U. (2011). The role of leadership competencies for implementing TQM: An empirical study in Thai manufacturing industry. *International Journal of Quality & Reliability Management*, 28(2), 195–219.
<https://doi.org/10.1108/026567111111101755>
- Daycare Nightmare For Parents. (2013, November 12). Retrieved April 9, 2018, from <http://www.malaysiandigest.com/opinion/479046-a-daycare-nightmare-for-parents.html>
- Definition of Physical Facilities. (n.d.). Retrieved April 23, 2018, from <https://www.lawinsider.com/dictionary/physical-facilities>
- DefinedTerm: Physical facilities. (n.d.). Retrieved April 23, 2018, from https://definedterm.com/physical_facilities
- Department of Statistics, M. (2016). *Children Statistics, Malaysia 2016*. Department of Statistics, Malaysia. <https://doi.org/10.1017/CBO9781107415324.004>
- Diana, A., Hollingworth, S. A., & Marks, G. C. (2013). Quality of physical resources of health facilities in Indonesia: A panel study 1993-2007. *International Journal for Quality in Health Care*, 25(5), 488–496.
<https://doi.org/10.1093/intqhc/mzt057>
- Dogan, A., Larson, C., Gillman, A., & Sussman, C. (2006). Designing Early Childhood Facilities. In *Community Investment Collaborate for Kids* (p. 62).
- Drake, B. (1994). Relationship competencies in child welfare services. *Social Work*

(United States), 39(5), 595–602. <https://doi.org/10.1093/sw/39.5.595>

- Drejer, A. (2001). How can we define and understand competencies and their development? *Technovation*, 21(3), 135–146. [https://doi.org/10.1016/S0166-4972\(00\)00031-6](https://doi.org/10.1016/S0166-4972(00)00031-6)
- Ehiri, J. E., Oyo-Ita, a E., Anyanwu, E. C., Meremikwu, M. M., & Ikpe, M. B. (2005). Quality of child health services in primary health care facilities in south-east Nigeria. *Child: Care, Health and Development*, 31(2), 181–191. <https://doi.org/10.1111/j.1365-2214.2004.00493.x>
- Elmadağ, A. B., Ellinger, A. E., & Franke, G. R. (2008). Antecedents and Consequences Of Frontline Service Employee Commitment to Service Quality. *The Journal of Marketing Theory and Practice*, 16(2), 95–110. <https://doi.org/10.2753/MTP1069-6679160201>
- Ford, C. (2015). Understanding Q-Q Plots | University of Virginia Library Research Data Services + Sciences.
- Fryrear, A. (2015). What's a Good Survey Response Rate? Retrieved from <https://www.surveygizmo.com/survey-blog/survey-response-rates/>
- Gartner, W. B., & Naughton, M. J. (1988). The Deming theory of management. *Academy of Management Review*, 13(1), 138–142. <https://doi.org/10.2307/258362>
- Gaskin, J. (2016). Data Screening. *Gaskination's StatWiki*, 1–6. Retrieved from http://statwiki.kolobkreatations.com/index.php?title=Data_screening
- Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology and Metabolism*, 10(2), 486–489. <https://doi.org/10.5812/ijem.3505>
- Ghazvini, A. S., & Readdick, C. A. (1994). Parent-caregiver communication and quality of care in diverse childcare settings. *Early Childhood Research Quarterly*, 9(2), 207–222. [https://doi.org/10.1016/0885-2006\(94\)90006-X](https://doi.org/10.1016/0885-2006(94)90006-X)
- Gialamas, A., Sawyer, A. C. P., Mittinty, M. N., Zubrick, S. R., Sawyer, M. G., & Lynch, J. (2014). Quality of childcare influences children's attentiveness and emotional regulation at school entry. *Journal of Pediatrics*, 165(4), 813–819.e3.

<https://doi.org/10.1016/j.jpeds.2014.06.011>

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8(4), 597–607.

<https://doi.org/10.3367/UFNr.0180.201012c.1305>

Gowen, C. R., Mcfadden, K. L., Hoobler, J. M., & Tallon, W. J. (2006). Exploring the efficacy of healthcare quality practices, employee commitment, and employee control. *Journal of Operations Management*, 24(6), 765–778.

<https://doi.org/10.1016/j.jom.2005.09.005>

Gubbels, J. S. (2014). Physical activity in childcare settings: The role of the environment. *Science & Sports*, 29, S41–S42.

<https://doi.org/10.1016/j.scispo.2014.08.082>

Gubbels, J. S., Van Kann, D. H. H., & Jansen, M. W. J. (2012). Play equipment, physical activity opportunities, and children's activity levels at childcare.

Journal of Environmental and Public Health, 2012.

<https://doi.org/10.1155/2012/326520>

Guide for Starting a Childcare Centre in Malaysia. (2018, January 19). Retrieved April 10, 2018, from <https://www.3ecpa.com.my/resources/industry-guide/guide-for-starting-a-childcare-centre-in-malaysia/>

Gulhane, T. F. (2014). Need For Advanced Facilities and Equipments in Physical Education Colleges. *IOSR Journal of Sports and Physical Education*, 1(6), 2347–6737.

Gupta, S., & Datta, R. (2016). *A methodology for component level improvement of passenger facilities at the Howrah railway station in India. The TQM Journal* (Vol. 28). <https://doi.org/10.1108/TQM-03-2013-0037>

Hallahan, K., Holtzhausen, D., van Ruler, B., Verčič, D., & Sriramesh, K. (2007). Defining Strategic Communication. *International Journal of Strategic Communication*, 1(1), 3–35. <https://doi.org/10.1080/15531180701285244>

Communication, 1(1), 3–35. <https://doi.org/10.1080/15531180701285244>

Hanafi, Z. (2015). The childcare Center: How to ensure quality childcare practices. *Asian Social Science*, 11(25), 90–100. <https://doi.org/10.5539/ass.v11n25p90>

Hansson, J., Backlund, F., & Lycke, L. (2003). Managing commitment: increasing

the odds for successful implementation of TQM, TPM or RCM. *International Journal of Quality & Reliability Management*, 20(9), 993–1008.

<https://doi.org/10.1108/02656710310500815>

Harvey, L. (2016). Analytic Quality Glossary. *Quality Research International*.

Retrieved from <http://www.qualityresearchinternational.com/glossary/>

Harwiki, W. (2016). The Impact of Servant Leadership on Organization Culture, Organizational Commitment, Organizational Citizenship Behaviour (OCB) and Employee Performance in Women Cooperatives. *Procedia - Social and Behavioral Sciences*, 219, 283–290.

<https://doi.org/10.1016/j.sbspro.2016.04.032>

Havnes, T., & Mogstad, M. (2011). No child left behind: Subsidized childcare and children's long-run outcomes. *American Economic Journal: Economic Policy*, 3(2), 97–129. <https://doi.org/10.1257/pol.3.2.97>

Hayase, L. K. T. (2009). Internal communication in organizations and employee engagement. *UNLV Theses, Dissertations, Professional Papers, and Capstones*. 1176, 1–103. Retrieved from <http://digitalscholarship.unlv.edu/thesesdissertations/1176> <http://search.proquest.com.ezaccess.libraries.psu.edu/docview/305084217/abstract?accountid=13158> <http://media.proquest.com.ezaccess.l>

Hayati, H. A. T., Khairul Anuar, M. A., & Khairur Rijal, J. (2008). Quality assurance in Halal food manufacturing in Malaysia: A preliminary study. *Proceedings of International Conference on Mechanical & Manufacturing Engineering (ICME2008)*, 2008(May), 21–23.

[https://doi.org/http://dx.doi.org/10.1016/S0140-6736\(94\)90566-5](https://doi.org/http://dx.doi.org/10.1016/S0140-6736(94)90566-5)

He, C., Yan, C., Field, A., Sevim, S., Aslihan Saban, Coklar, A. N., ... McMaster, K. (2013). Factor Analysis Using SPSS. *Scientific Research and Essays*, 22(June), 1–26. <https://doi.org/10.1016/B978-0-444-52272-6.00519-5>

Heng Keng Chiam. (2008). Childcare in Malaysia: Then and now. *Childcare and Education Policy*, 2(2), 31–41. <https://doi.org/10.1007/2288-6729-2-2-31>

Hermens, M. (1997). A New Use for Ishikawa Diagrams. *Quality Progress*, 30(6),

81–83.

- Hill, R. (1998). What sample size is “enough” in internet survey research? *An Electronic Journal for the 21st Century*, (6), 3–4.
- Hipp, L., Morrissey, T. W., & Warner, M. E. (2017). Who Participates and Who Benefits From Employer-Provided Child-Care Assistance? *Journal of Marriage and Family*, 79(3), 614–635. <https://doi.org/10.1111/jomf.12359>
- Hoffmann, T. (1999). The meanings of competency. *Journal of European Industrial Training*, 23(6), 275–286. <https://doi.org/10.1108/03090599910284650>
- Hood, N. E., Colabianchi, N., Terry-McElrath, Y. M., O’Malley, P. M., & Johnston, L. D. (2014). Physical activity breaks and facilities in US secondary schools. *Journal of School Health*, 84(11), 697–705. <https://doi.org/10.1111/josh.12206>
- Houston, D., Ong, P., Wu, J., & Winer, A. (2006). Proximity of licensed childcare facilities to near-roadway vehicle pollution. *American Journal of Public Health*, 96(9), 1611–1617. <https://doi.org/10.2105/AJPH.2005.077727>
- Iqbal, A., Tufail, M. S., & Lodhi, R. N. (2015). Employee Loyalty and Organizational Commitment in Pakistani Organizations. *Global Journal Of Human Resource Management*, 3(1), 1–11.
- Johnson, R. E., Chang, C. H., & Yang, L. Q. (2010). Commitment and motivation at work: The relevance of employee identity and regulatory focus. *Academy of Management Review*, 35(2), 226–245. <https://doi.org/10.5465/AMR.2010.48463332>
- Juran, J. (1989). Juran on leadership for quality: an executive handbook. *Wilson, CT: McGraw-Hill*, 319.
- Juran, J. M. (1988). Juran on planning for quality. *New York: Free Press*.
- Kahabuka, C., Kvåle, G., Moland, K. M., & Hinderaker, S. G. (2011). Why caretakers bypass Primary Health Care facilities for childcare - a case from rural Tanzania. *BMC Health Services Research*, 11(1), 315. <https://doi.org/10.1186/1472-6963-11-315>
- Keçetep, İ., & Özkan, İ. (2014). Quality Assurance in the European Higher

- Education Area. *Procedia - Social and Behavioral Sciences*, 141, 660–664.
<https://doi.org/10.1016/j.sbspro.2014.05.115>
- Kim-Soon, N., Chin, L. H., & Ahmad, A. R. (2017). Quality assurance practices of small size food manufacturing companies in Malaysia. *Advanced Science Letters*, 23(1), 382–385. <https://doi.org/10.1166/asl.2017.7192>
- Kindlarski, E. (1984). *Ishikawa Diagrams for Problem Solving. Quality Progress* (Vol. 17, pp. 26–30).
- Krieger, N. (2012). Who and what is a ‘population’? Historical debates, current controversies, and implications for understanding ‘population health’ and rectifying health inequities. *Milbank Quarterly*, 90(4), 634–681.
<https://doi.org/10.1111/j.1468-0009.2012.00678.x>
- Landesberg, P. (1999). In the beginning there were Deming and Juran. *Journal for Quality and Participation*, 59–61.
- Landry, G., & Vandenberghe, C. (2012). Relational commitments in employee-supervisor dyads and employee job performance. *Leadership Quarterly*, 23(3), 293–308. <https://doi.org/10.1016/j.leaqua.2011.05.016>
- Landsman, M. J. (2001). Commitment in public child welfare. *Social Service Review*, 75(3), 386–419. <https://doi.org/10.1086/322857>
- Laquatra, J., Maxwell, L. E., & Pierce, M. (2005). Indoor air pollutants: limited-resource households and childcare facilities. *Journal of Environmental Health*, 67(7), 39–43, 61. Retrieved from
<http://www.ncbi.nlm.nih.gov/pubmed/15794462>
- Lavrakas, P. J. (2008). *Encyclopedia of survey research methods*. SAGE Publications Ltd. <https://doi.org/10.4135/9781412963947>
- Lederman, N. G., & Lederman, J. S. (2015). What Is A Theoretical Framework? A Practical Answer. *Journal of Science Teacher Education*, 26(7), 593–597.
<https://doi.org/10.1007/s10972-015-9443-2>
- Legal Childcare Centres Scarce. (2014, August 14). Retrieved April 9, 2018, from
<https://www.thestar.com.my/news/nation/2014/08/14/legal-childcare-centres-scarce-association-many-are-overburdened/>

- Ley, T., & Albert, D. (2003). Identifying Employee Competencies in Dynamic Work Domains: Methodological Considerations and a Case Study. *Journal Of Universal Computer Science*, 9(12), 1500–1518. Retrieved from https://share.know-center.at/tley_papers/JUCS_Ley_Albert.pdf
- Locke, E. A., Latham, G. P., & Erez, M. (1988). The Determinants of Goal Commitment. *Academy of Management Review*, 13(1), 23–39. <https://doi.org/10.5465/AMR.1988.4306771>
- Love, J. M., Harrison, L., Sagi-Schwartz, A., van IJzendoorn, M. H., Ross, C., Ungerer, J. A., ... Chazan-Cohen, R. (2003). Childcare Quality Matters: How Conclusions May Vary With Context. *Child Development*, 74(4), 1021–1033. <https://doi.org/10.1111/1467-8624.00584>
- Lunenburg, F. C. (2010). Communication : The Process , Barriers , And Improving Effectiveness. *Schooling*, 1, 1–11.
- Lynch, S. M. (2013). Introduction to multiple regression. In *Using Statistics in Social Research* (pp. 143–173). <https://doi.org/10.1007/978-1-59745-324-0>
- Malay Mail. (2017, August 27). Rohani says 581 child abuse cases reported from 2015 until June | Malay Mail. Retrieved May 7, 2018, from <https://www.malaymail.com/s/1452111/rohani-says-581-child-abuse-cases-reported-from-2015-until-june>
- Martinez, E. A., Tocantins, F. R., & de Souza, S. R. (2013). [The specificities of communication in child nursing care]. *Revista Gaúcha de Enfermagem / EENFUFGRS*, 34(1), 37–44. <https://doi.org/10.1590/S1983-14472013000100005>
- McLeod, S. (2008). Likert Scale | Simply Psychology. *Simply Psychology*. Retrieved from <http://www.simplypsychology.org/likert-scale.html>
- Medhat, N., Samy, S. a., Wahed, M. A., & Mohamed, a. S. a. (2008). Medical Equipment Quality Assurance for Healthcare Facilities. *2008 Cairo International Biomedical Engineering Conference*, 1–4. <https://doi.org/10.1109/CIBEC.2008.4786101>
- Men, L. R. (2014a). Strategic Internal Communication: Transformational Leadership, Communication Channels, and Employee Satisfaction. *Management*

Communication Quarterly, 28(2), 264–284.

<https://doi.org/10.1177/0893318914524536>

Men, L. R. (2014b). Why Leadership Matters to Internal Communication: Linking Transformational Leadership, Symmetrical Communication, and Employee Outcomes. *Journal of Public Relations Research*, 26(3), 256–279.
<https://doi.org/10.1080/1062726X.2014.908719>

Mendenhall, R. W. (2012). ‘What is Competency-Based Education?’ *The Huffington Post*, September.

Meyer, J. P., Becker, T. E., & Vandenberghe, C. (2004). Employee commitment and motivation: A conceptual analysis and integrative model. *Journal of Applied Psychology*, 89(6), 991–1007. <https://doi.org/10.1037/0021-9010.89.6.991>

Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review*, 11(3), 299–326.
[https://doi.org/10.1016/S1053-4822\(00\)00053-X](https://doi.org/10.1016/S1053-4822(00)00053-X)

Meyer, J. P., & Maltin, E. R. (2010). Employee commitment and well-being: A critical review, theoretical framework and research agenda. *Journal of Vocational Behavior*. <https://doi.org/10.1016/j.jvb.2010.04.007>

Meyer, J. P., Stanley, L. J., & Parfyonova, N. M. (2012). Employee commitment in context: The nature and implication of commitment profiles. *Journal of Vocational Behavior*, 80(1), 1–16. <https://doi.org/10.1016/j.jvb.2011.07.002>

Ming Yen Teoh, W., & Choy Chong, S. (2014). Towards strengthening the development of women entrepreneurship in Malaysia. *Gender in Management: An International Journal*, 29(7), 432–453. <https://doi.org/10.1108/GM-10-2013-0122>

Mink, C. M., & Yeh, S. (2009). Infections in Child-care Facilities and Schools. *Pediatrics in Review*, 30(7), 259–269. <https://doi.org/10.1542/pir.30-7-259>

Mirzazadeh, A., Hejri, S. M., Jalili, M., Asghari, F., Labaf, A., Siyahkal, M. S., ... Saleh, N. (2014). Defining a competency framework: The first step toward competency-based medical education. *Acta Medica Iranica*, 52(9), 710–716.

Mitchelmore, S., & Rowley, J. (2013). Entrepreneurial competencies of women

- entrepreneurs pursuing business growth. *Journal of Small Business and Enterprise Development*, 20(1), 125–142.
<https://doi.org/10.1108/14626001311298448>
- Mohamed Adam, H. (2009). Research Population. Nov 15. Retrieved from
<https://explorable.com/research-population>
- Mowday, R. T. ., Porter, L. W. ., & Steers, R. M. . (1983). *Employee-Organization linkages: The psychology of commitment, absenteeism, and turnover*. *American Journal of Society* (Vol. 88). <https://doi.org/10.2307/2068333>
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14(2), 224–247.
[https://doi.org/10.1016/0001-8791\(79\)90072-1](https://doi.org/10.1016/0001-8791(79)90072-1)
- Musa, M. F., & Ahmad@Baharum, Z. (2012). Higher Education Physical Assets and Facilities. *Procedia - Social and Behavioral Sciences*, 50, 472–478.
<https://doi.org/10.1016/j.sbspro.2012.08.051>
- My, J. G. (2013, June 15). The importance of early education. Retrieved April 17, 2018, from <https://www.thestar.com.my/news/education/2013/06/16/the-importance-of-early-education-what-is-inclusive-education-the-montessori-method-creating-good-s/>
- Ndirangu, M., & Udoto, M. O. (2011). Quality of learning facilities and learning environment. *Quality Assurance in Education*, 19(3), 208–223.
<https://doi.org/10.1108/09684881111158036>
- Need for more childcare centres, says Rohani. (2014, February 17). *Malaymail online*. Retrieved from <http://www.themalaymailonline.com/malaysia/article/need-for-more-child-care-centres-says-rohani>
- New Straits Times - Many child abuse cases go unreported. (n.d.). Retrieved May 7, 2018, from <http://www.ism.gov.my/en/ism-media-eng/news-clipping/news-clipping/101-new-straits-times-many-child-abuse-cases-go-unreported>
- NICHD Early Childcare Research Network. (2006). Child-care effect sizes for the NICHD Study of Early Childcare and Youth Development. *The American Psychologist*, 61(2), 99–116. <https://doi.org/10.1037/0003-066X.61.2.99>
- Nicholson, K. (2011). Quality Assurance in Higher Education: A Review of the

- Literature. *Council of Ontario Universities Degree Level Expectations Project*, 1–15. <https://doi.org/10.18870/hlrc.v5i4.257>
- Olive, D. J. (2017). One Way Anova. In *Linear Regression* (pp. 175–211). https://doi.org/10.1007/978-3-319-55252-1_5
- Online, T. S. (2014, August 13). Toddler succumbs to head injuries. Retrieved May 7, 2018, from <https://www.thestar.com.my/news/nation/2014/08/14/toddler-succumbs-to-head-injuries/>
- Othman, B., Shaarani, S. M., & Bahron, A. (2016). Evaluation of knowledge, halal quality assurance practices and commitment among food industries in Malaysia. *British Food Journal*, 118(8), 2033–2052. <https://doi.org/10.1108/BFJ-12-2015-0496>
- Parasuraman, a, Zeithaml, V. a, & Berry, L. L. (1988). SERQUAL: A Multiple-Item scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64, 28. [https://doi.org/10.1016/S0148-2963\(99\)00084-3](https://doi.org/10.1016/S0148-2963(99)00084-3)
- Petersen, P. B. (1999). Total quality management and the Deming approach to quality management. *Journal of Management History*, 5(8), 468–488. <https://doi.org/10.1108/13552529910290520>
- Pheng, L. S. (2007). Childcare Services in Malaysia. *Exchange: The Early Childhood Leaders' Magazine Since 1978*, (175), 82–84. Retrieved from <http://www.diglib.um.edu.my/interaktif/default.asp?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ763225&site=eds-live%0Ahttps://secure.ccie.com/catalog/magazine.php>
- Pinto, A. I., Pessanha, M., & Aguiar, C. (2013). Effects of home environment and center-based childcare quality on children's language, communication, and literacy outcomes. *Early Childhood Research Quarterly*, 28(1), 94–101. <https://doi.org/10.1016/j.ecresq.2012.07.001>
- Potnuru, R. K. G., & Sahoo, C. K. (2016). HRD interventions, employee competencies and organizational effectiveness: an empirical study. *European Journal of Training and Development*, 40(5), 345–365. <https://doi.org/10.1108/EJTD-02-2016-0008>
- Project Management Skills. (2015). What is Quality Assurance? Retrieved from

<http://www.project-management-skills.com/what-is-quality-assurance.html>

- Ramsay, S. A., Branen, L. J., Fletcher, J., Price, E., Johnson, S. L., & Sigman-Grant, M. (2010). 'Are you done?' Childcare providers' verbal communication at mealtimes that reinforce or hinder children's internal cues of hunger and satiation. *Journal of Nutrition Education and Behavior*, 42(4), 265–270.
<https://doi.org/10.1016/j.jneb.2009.07.002>
- Reber, P. A., DiPietro, E. A., Paraway, Y., Obst, B. P., Smith, R. A., & Koller, C. L. S. (2011). Communication: the key to effective interdisciplinary collaboration in the care of a child with complex rehabilitation needs. *Rehabilitation Nursing : The Official Journal of the Association of Rehabilitation Nurses*, 36(5), 181–185,213.
- Reedy, C. K., & McGrath, W. H. (2010). Can you hear me now? staff-parent communication in childcare centres. *Early Child Development and Care*, 180(3), 347–357. <https://doi.org/10.1080/03004430801908418>
- Reimann, C., Filzmoser, P., Garrett, R. G., & Dutter, R. (2008). Correlation. *Statistical {Data} {Analysis} {Explained}*, 181–191.
<https://doi.org/10.1002/9780470987605.ch11>
- Ries, A. V., Yan, A. F., & Voorhees, C. C. (2011). The neighborhood recreational environment and physical activity among urban youth: An examination of public and private recreational facilities. *Journal of Community Health*, 36(4), 640–649. <https://doi.org/10.1007/s10900-010-9355-1>
- Rowe, K. (2006). The measurement of composite variables from multiple indicators: Applications in Quality Assurance and Accreditation Systems–Childcare. *Acer*, (August), 1–16. Retrieved from http://ncac.acecqa.gov.au/reports/report-documents/composite_variables.pdf
- Ruck, K., & Welch, M. (2012). Valuing internal communication; management and employee perspectives. *Public Relations Review*, 38(2), 294–302.
<https://doi.org/10.1016/j.pubrev.2011.12.016>
- Rungtusanatham, M., Ogden, J. a., & Wu, B. (2003). Advancing theory development in total quality management: A “Deming management method” perspective. *International Journal of Operations & Production Management*, 23(8), 918–

936. <https://doi.org/10.1108/01443570310486356>

- Rusbult, C. E., & Farrell, D. (1983). A longitudinal test of the investment model: The impact on job satisfaction, job commitment, and turnover of variations in rewards, costs, alternatives, and investments. *Journal of Applied Psychology*, 68(3), 429–438. <https://doi.org/10.1037/0021-9010.68.3.429>
- Saraph, J. V., Benson, P. G., & Schroeder, R. G. (1989). An Instrument for Measuring the Critical Factors of Quality Management. *Decision Sciences*, 20(4), 810–829. <https://doi.org/10.1111/j.1540-5915.1989.tb01421.x>
- Saridakis, G., Muñoz Torres, R., & Johnstone, S. (2013). Do Human Resource Practices Enhance Organizational Commitment in SMEs with Low Employee Satisfaction? *British Journal of Management*, 24(3), 445–458. <https://doi.org/10.1111/j.1467-8551.2012.00814.x>
- Sava, S., Borca, C., & Danciu, L. (2014). Models of Quality Assurance in Evaluation and Validation of Competencies, for an Easier Access to Higher Education. *Procedia - Social and Behavioral Sciences*, 142, 176–182. <https://doi.org/10.1016/j.sbspro.2014.07.640>
- Schalk, R., & Van Dijk, W. (2005). Quality management and employee commitment illustrated with examples from Dutch health care. *International Journal of Health Care Quality Assurance Incorporating Leadership in Health Services*, 18(2–3), 170–178. <https://doi.org/10.1108/09526860510594730>
- Sekaran, U., & Bougie, R. (2016). Research Methods for Business: A Skill Building Approach. In *Research methods for business* (p. 436).
- Selvi, K. (2010). Teachers' Competencies. *Cultura International Journal of Philosophy of Culture and Axiology*, 7(1), 167–175. <https://doi.org/10.5840/cultura20107133>
- Shaheen, A. (2017). Successful employee retention strategies in childcare centers. *Dissertation Abstracts International*, 78(4-A(E)), Sefe.
- Sharma, P., Tak, T., Kong, C., & Kingshott, R. P. J. (2015). Journal of Service Management Internal service quality as a driver of employee satisfaction, commitment and performance Exploring the focal role of employee well-being.

Journal of Service Management International Journal of Productivity and Performance Management Iss Journal of Service Management, 27(5), 773–797.
<https://doi.org/10.1108/02656710210415703>

Shipton, H., Sanders, K., Atkinson, C., & Frenkel, S. (2016). Sense-giving in health care: the relationship between the HR roles of line managers and employee commitment. *Human Resource Management Journal*, 26(1), 29–45.
<https://doi.org/10.1111/1748-8583.12087>

Sim, H. K. C., & Idrus, R. M. (2004). A study of quality assurance practices in the Universiti Sains Malaysia (USM), Malaysia. *Turkish Online Journal of Distance Education*, 5(1).

Simon, A., Owen, C., & Hollingworth, K. (2016). Is the ‘quality’ of Preschool Childcare, Measured by the Qualifications and Pay of the Childcare Workforce, Improving in Britain? *American Journal of Educational Research*, 4(1), 11–17.
<https://doi.org/10.12691/education-4-1-4>

Small, R. W., & Fulcher, L. C. (2006). Developing social competencies in group care practice. *Child and Youth Services*, 27(1–2), 51–73.
https://doi.org/10.1300/J024v27n01_03

Smidts, A., Pruyn, A. T. H., & Van Riel, C. B. M. (2001). The impact of employee communication and perceived external prestige on organizational identification. *Academy of Management Journal*, 44(5), 1051–1062.
<https://doi.org/10.2307/3069448>

Sokoll, S. (2014). Servant leadership and employee commitment to a supervisor. *International Journal of Leadership Studies*, 8(2), 88–104.

Statistics, L. (2013). Independent T-Test - An introduction to when to use this test and what are the variables required. Retrieved from
<https://statistics.laerd.com/statistical-guides/independent-t-test-statistical-guide.php>

Stremmel, A. J., Benson, M. J., & Powell, D. R. (1993). Communication, satisfaction, and emotional exhaustion among childcare center staff: Directors, teachers, and assistant teachers. *Early Childhood Research Quarterly*, 8(2), 221–233. [https://doi.org/10.1016/S0885-2006\(05\)80092-4](https://doi.org/10.1016/S0885-2006(05)80092-4)

- Sturgeon, C. M. (2013). Quality Assurance. In *The Immunoassay Handbook* (pp. 441–454). <https://doi.org/10.1016/B978-0-08-097037-0.00030-0>
- Sulaiman, Y., Othman, A. R., Perumal, S., & Hussin, Z. (2013). Escalating the employee job satisfaction through internal market orientation: A childcare centre perspective. *Jurnal Teknologi (Sciences and Engineering)*, 64(2), 133–138. <https://doi.org/10.11113/jt.v64.2250>
- Tammy, T., Emeka, O., Nwachukwu, A., & Harcourt, P. (2012). Management of Physical Education Facilities , Equipment and Supplies in Secondary Schools in Nigeria : issues and challenges. *Journal of Education and Practice*, 3(3), 43–48. Retrieved from [http://pakacademicsearch.com/pdf-files/edu/413/43-47 Vol 3, No 3 \(2012\).pdf](http://pakacademicsearch.com/pdf-files/edu/413/43-47%20Vol%203%20(2012).pdf)
- Tee, O. P. (2005). A Comparative Study of Malay-operated and Chinese-operated Childcare Centres in the State of Melaka, Malaysia. *Childcare in Practice*, 11(1), 23–38. <https://doi.org/http://dx.doi.org/10.1080/1357527042000332772>
- Teo, C. (2012, March 9). Childcare in Crisis in Malaysia. Retrieved April 9, 2018, from <http://jakartaglobe.id/archive/childcare-in-crisis-in-malaysia/>
- Thabane, L., Ma, J., Chu, R., Cheng, J., Ismaila, A., Rios, L. P., ... Goldsmith, C. H. (2010). A tutorial on pilot studies: The what, why and how. *BMC Medical Research Methodology*. <https://doi.org/10.1186/1471-2288-10-1>
- Thanomwan, P., & Dhatthakan, P. (2014). Relationship between Administrators' Competencies and Internal Quality Assurance. *Procedia - Social and Behavioral Sciences*, 116, 808–814. <https://doi.org/10.1016/j.sbspro.2014.01.302>
- The principles of quality assurance. (1989). *International Journal for Quality in Health Care*, 1(2–3), 79–95. <https://doi.org/10.1093/intqhc/1.2-3.79>
- The quality of childcare services - a comparative view. (2010). *CESifo DICE Report*, 8(1), 69–73.
- Thompson, S. K. (2012). Simple Random Sampling. In *Sampling* (pp. 9–37). <https://doi.org/10.1002/9781118162934.ch2>
- Thong, J. F., Mok, P., & Loke, D. (2010). A quality assurance survey to improve

- communication between ENT specialists and general practitioners. *Singapore Medical Journal*, 51(10), 796–799.
- Thornhill, A., Lewis, P., & Saunders, M. N. K. (1996). The role of employee communication in achieving commitment and quality in higher education. *Quality Assurance in Education*, 4(1), 12–20.
<https://doi.org/10.1108/09684889610107995>
- Tkalac Verčič, A., Verčič, D., & Sriramesh, K. (2012). Internal communication: Definition, parameters, and the future. *Public Relations Review*, 38(2), 223–230.
<https://doi.org/10.1016/j.pubrev.2011.12.019>
- To, T., Cadarette, S. M., & Liu, Y. (2000). Childcare arrangement and preschool development. *Canadian Journal of Public Health*, 91(6), 418–422.
- Trilk, J. L., Ward, D. S., Dowda, M., Pfeiffer, K. A., Porter, D. E., Hibbert, J., & Pate, R. R. (2011). Do physical activity facilities near schools affect physical activity in high school girls? *Health and Place*, 17(2), 651–657.
<https://doi.org/10.1016/j.healthplace.2011.01.005>
- Trochim, W. M. K. (2006). The Research Methods Knowledge Base, 2nd Edition. *Atomic Dog Publishing, Cincinnati, OH.*, Internet WWW.
<https://doi.org/10.2471/BLT.05.029181>
- UtrechtUniversity. (2012). Chapter 7 – Factor Analysis – SPSS. *Analysis*, 1–5.
Retrieved from <http://www.cs.uu.nl/docs/vakken/arm/SPSS/spss7.pdf>
- Van Leeuwen, R., & Cusveller, B. (2004). Nursing competencies for spiritual care. *Journal of Advanced Nursing*. <https://doi.org/10.1111/j.1365-2648.2004.03192.x>
- Wallace, E., de Chernatony, L., & Buil, I. (2013). Building bank brands: How leadership behavior influences employee commitment. *Journal of Business Research*, 66(2), 165–171. <https://doi.org/10.1016/j.jbusres.2012.07.009>
- Watson, S. (2011). Good communication is the key to success. *Employee Benefits*, 32. <https://doi.org/10.1136/bmj.k1704>
- Welch, M. (2011). The evolution of the employee engagement concept: communication implications. *Corporate Communications: An International*

- Journal*, 16(4), 328–346. <https://doi.org/10.1108/13563281111186968>
- Wickramaratne, W. P. R. (2013). Organizational Commitment and Employee Perceived TQM Excellence. *Management and Labour Studies*, 38(4), 399–409. <https://doi.org/10.1177/0258042X13513136>
- Williams, J. (2016). Quality assurance and quality enhancement: is there a relationship? *Quality in Higher Education*, 22(2), 97–102. <https://doi.org/10.1080/13538322.2016.1227207>
- Wong, K. C., Woo, K. Z., & Woo, K. H. (2016). Ishikawa diagram. In *Quality Improvement in Behavioral Health* (pp. 119–132). https://doi.org/10.1007/978-3-319-26209-3_9
- Woollacott, L. C. (2009). Taxonomies of engineering competencies and quality assurance in engineering education. In *Engineering Education Quality Assurance: A Global Perspective* (pp. 257–295). https://doi.org/10.1007/978-1-4419-0555-0_21
- Wu, Y.-C., Tsai, C.-S., Hsiung, H.-W., & Chen, K.-Y. (2015). Linkage between frontline employee service competence scale and customer perceptions of service quality. *Journal of Services Marketing*, 29(3), 224–234. <https://doi.org/10.1108/JSM-02-2014-0058>
- Yingqiang, Z., & Yongjian, S. (2016). Quality Assurance in Higher Education: Reflection, Criticism, and Change. *Chinese Education and Society*, 49(1–2), 7–19. <https://doi.org/10.1080/10611932.2016.1192382>
- Yu, W., & Ramanathan, R. (2013). Business environment, employee competencies and operations strategy: An empirical study of retail firms in China. *IMA Journal of Management Mathematics*, 24(2), 231–252. <https://doi.org/10.1093/imaman/dpr026>
- Zemke, R. (1993). A bluffer's guide to TQM. *Training*, 30(4), 48–55.
- Zikmund, W. G., Carr, J. C., Griffi, M., & Babin, B. J. (2013). *Business Research Methods*. South-Western, Cengage Learning (Vol. 8). <https://doi.org/9781285401188>

APPENDIX
QUESTIONNAIRE



Questionnaire/ Soal Selidik

**The factors influence quality assurance level among childcare employees in
Selangor**

***Faktor-faktor mempengaruhi tahap jaminan kualiti di kalangan pekerja taska di
Selangor***

Dear Respondent,

I am a Master of Science (Management) student in Universiti Utara Malaysia. The questionnaire contains 2 sections: Section A and Section B. The purpose of this questionnaire is to identify the factors influence quality assurance level among childcare employees in Selangor. All the information provided is CONFIDENTIAL and used for academic purpose only. We will not publish any information that would involve any individual or organization for other purposes. Thank you for your time and cooperation in completing this research.

Responden yang dihormati,

Saya merupakan pelajar Sarjana Sains (Pengurusan) di Universiti Utara Malaysia. Soal selidik ini mengandungi 2 Bahagian: Bahagian A dan Bahagian B. Tujuan soal selidik ini adalah untuk mengenal pasti Faktor-faktor mempengaruhi tahap jaminan kualiti di kalangan pekerja penjagaan kanak-kanak di Selangor. Semua maklumat yang diberikan adalah SULIT dan digunakan untuk tujuan akademik sahaja. Kami tidak akan menyiarkan sebarang maklumat yang akan melibatkan mana-mana individu atau organisasi bagi tujuan lain. Terima kasih di atas masa dan kerjasama anda dalam menyiapkan penyelidikan ini.

Researcher's Name/ Nama Penyelidik: Ng Kel Lie (822581)

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Section A: Demographical Background of the Respondent

Bahagian A: Latar Belakang Demografi Responden

This section is to obtain information of the respondent background. Please tick (/) in the appropriate selection. *Bahagian ini adalah untuk mendapatkan maklumat mengenai latar belakang responden. Sila tandakan (/) pada pilihan yang berkenaan.*

1. Gender/ *Jantina*:

☐ Male/*Lelaki* ☐ Female/*Perempuan*

2. Age/ *Umur*:

☐ < 25 ☐ 36-45

☐ 26-35 ☐ 46-55

☐ >55

3. Ethnic Group/ *Kumpulan Etnik*:

☐ Malay/*Melayu* ☐ Indian/*India*

☐ Chinese/*Cina* ☐ Others/*Lain-lain*: _____ (Please State/*Sila Nyatakan*)

4. Religion/ *Agama*:

☐ Muslim/*Islam* ☐ Christianity/*Kristian*

☐ Buddhism/*Buddha* ☐ Hinduism/*Hindu*

☐ Others/*Lain-lain*: _____ (Please State/*Sila Nyatakan*)

5. Highest Educational Level/ *Tahap Pendidikan Tertinggi*

☐ PMR / *PMR* ☐ STPM / *STPM*

☐ SPM/ *SPM* ☐ Others/ *Lain-lain*: _____ (Please State/ *Sila Nyatakan*)

6. Years of working experience/ *Tahun pengalaman bekerja*:

☐ 0-5 ☐ 11-15

☐ 6-10 ☐ More than 15

Section B: Questionnaire regarding the factors influence quality assurance level among childcare employees in Selangor

Bahagian B: Soal Selidik Mengenai Faktor-faktor mempengaruhi tahap jaminan kualiti di kalangan pekerja taska di Selangor

Please indicate your respond to the following statement according to the scale below.

Sila nyatakan jawapan anda dengan kenyataan berikut mengikut skala di bawah.

1	2	3	4	5		
Strongly Disagree/ Sangat Tidak Setuju	Disagree/ Tidak Bersetuju	Neutral/ Neutral	Agree/ Setuju	Strongly Agree/ Sangat Setuju		
Questions						
	Quality Assurance / Jaminan Kualiti					
1	There is a comprehensiveness of goal-setting process for quality within the childcare centre. <i>Terdapat proses penetapan matlamat untuk kualiti secara komprehensif di taska.</i>	1	2	3	4	5
2	There is a degree of comprehensiveness of quality plan within the childcare centre. <i>Terdapat tahap pelan kualiti yang komprehensif di taska.</i>	1	2	3	4	5
3	Quality related training technical given to employees throughout the childcare centre. <i>Latihan berkaitan kualiti teknikal diberikan kepada pekerja di seluruh taska. .</i>	1	2	3	4	5
4	Training in the total quality concept throughout the childcare centre. <i>Latihan dalam konsep kualiti secara menyeluruh di semua taska.</i>	1	2	3	4	5
5	Availability of resources for employee training in childcare centre. <i>Ketersediaan sumber untuk latihan pekerja di taska.</i>	1	2	3	4	5
6	Effectiveness of quality circle or employee involvement type programs are implemented in the childcare centre. <i>Keberkesanan hayat kualiti atau program penglibatan pekerja dilaksanakan di taska.</i>	1	2	3	4	5
7	Amount of feedback provided to employees on their quality performance. <i>Jumlah maklum balas diberikan kepada pekerja bagi prestasi kualiti mereka.</i>	1	2	3	4	5

8	Quality awareness building among employees is ongoing. <i>Pembinaan kesedaran kualiti di kalangan pekerja dijalankan secara berterusan.</i>	1	2	3	4	5
	Physical facilities / Kemudahan fizikal					
9	The childcare centre have up-to-date equipment. <i>Taska mempunyai peralatan terkini.</i>	1	2	3	4	5
10	The childcare centre physical facilities are visually appealing. <i>Kemudahan fizikal taska adalah menarik dari segi visual.</i>	1	2	3	4	5
11	Employee of childcare centre are well dresses and appear neat. <i>Pekerja pusat penjagaan kanak-kanak adalah berpakaian elok dan kemas.</i>	1	2	3	4	5
12	The appearance of the physical facilities of childcare is in keeping with the types of service provided. <i>Kemudahan fizikal taska adalah selaras dengan jenis perkhidmatan yang disediakan</i>	1	2	3	4	5
	Employee commitment/ Komitmen pekerja					
13	I am willing to put a great deal of effort beyond that normally expected in order to help childcare centre be successful. <i>Saya bersedia untuk berusaha bersungguh-sungguh melangkaui jangkaan yang biasa ada untuk membantu kejayaan taska.</i>	1	2	3	4	5
14	I would accept almost any type of job assignment in order to keep working for childcare centre. <i>Saya akan menerima semua jenis tugas pekerjaan untuk terus bekerja di taska</i>	1	2	3	4	5
15	I find that my value and childcare centre values are very similar. <i>Saya mendapati nilai saya dan nilai taska sangat serupa.</i>	1	2	3	4	5
16	I am proud to tell others that I am part of this childcare centre. <i>Saya bangga memberitahu orang lain bahawa saya adalah sebahagian daripada taska ini.</i>	1	2	3	4	5
17	Childcare centre really inspires the very best in me in the way of job performance. <i>Taska benar-benar memberi inspirasi yang terbaik kepada prestasi kerja saya. .</i>	1	2	3	4	5

18	I am extremely glad that I choose childcare centre to work for over others I was considering at the time I joined. <i>Saya amat gembira kerana saya memilih taska untuk bekerja lebih daripada yang lain yang saya sedang pertimbangkan ketika itu.</i>	1	2	3	4	5
19	For me, this is the best of all possible childcare centre for which to work. <i>Bagi saya, ini adalah yang terbaik daripada semua taska yang ada.</i>	1	2	3	4	5
	Communication/ Komunikasi					
20	I have been interact with each child in a warm and friendly way. <i>Saya telah berinteraksi dengan setiap kanak-kanak dengan melalui cara yang mesra.</i>	1	2	3	4	5
21	I have been initiate and maintain respectful communication with each child. <i>Saya telah memulakan dan mengekalkan perhubungan yang baik dengan setiap kanak-kanak.</i>					
22	I have been communicate effectively to promote respect and professional teamwork. <i>Saya telah berkomunikasi secara efektif untuk menggalakkan sikap saling menghormati dan kerja berpasukan secara profesional</i>	1	2	3	4	5
23	I have been communicate with families effectively to exchange information about each child and centre. <i>Saya telah berkomunikasi dengan pihak keluarga secara berkesan untuk bertukar maklumat mengenai setiap kanak-kanak dan taska..</i>	1	2	3	4	5
24	I have the written information about the childcare centre's management which is readily available to families. <i>Saya mempunyai maklumat bertulis mengenai taska yang telah tersedia untuk keluarga.</i>	1	2	3	4	5
25	I have received the written information about the childcare centre's management to staff. <i>Saya telah menerima maklumat bertulis mengenai taska kepada kakitangan.</i>	1	2	3	4	5
	Employee competencies / Kecekapan pekerja					
26	I have the knowledge from every day experiences and formal education experience about childcare.	1	2	3	4	5

	<i>Saya mempunyai pengetahuan dari pengalaman harian dan juga pengalaman pendidikan secara formal tentang taska..</i>					
27	I am able to manage several task at once, being able to set priorities and allocate time efficiently in order to meet deadlines in childcare centre. <i>Saya dapat menguruskan beberapa tugas sekaligus, dapat menetapkan keutamaan dan memperuntukkan masa dengan cekap untuk mengejar tarikh akhir di taska.</i>	1	2	3	4	5
28	I am able to maintain energy level, motivating myself to perform, maintain positive attitude and responding appropriately to criticism in childcare centre. <i>Saya dapat mengekalkan tenaga, memotivasi diri saya untuk melakukan sesuatu kerja,, mengekalkan sikap positif dan bertindak balas dengan tepat kepada kritikan di taska.</i>	1	2	3	4	5
29	I am able to identify, prioritizing and solving problem in childcare centre. <i>Saya dapat mengenal pasti, mengutamakan dan menyelesaikan masalah di taska.</i>	1	2	3	4	5



—Thank you for your cooperation!—

Universiti Utara Malaysia