

Chapter 5

Conclusion, Discussion and Suggestion

The purpose of this research and development are 1) To synthesize standards and indicators of Internal Educational Quality Assurance for Bilingual Schools in Early Childhood Education Level 2) To construct and develop Internal Educational Quality Assurance Model for Bilingual Schools in Early Childhood Education Level and 3) To study and analyze the result of Internal Educational Quality Assurance Model for Bilingual Schools in Early Childhood Education Level. There were 3 phases in research process, firstly, synthesizing the standards and indicators. Secondly, constructing and developing the model and finally, studying the result of the model usage. The sample groups which were in phase1 are held with over 900 samples from Stratified random sampling according to the school size .In phase 3 includes administrators, heads of academic affair, or heads of internal educational quality assurance affair, and teachers in large school, middle school, and small school by means of Simple random sampling. The tools were the recordings of synthesis document, the recordings of Brainstorming meeting about quality of model and the questionnaires. Researcher analyzed data by using Exploratory Factor Analysis, Second-Order Confirmatory Factor Analysis, mean value, standard deviation value and Pearson product Moment Correlation Coefficient. The content of this chapter are separated into 3 part including 1) result conclusion 2) discussion and 3) suggestion, these can be found below.

5.1 Result conclusion

1. Synthesis of the result of standards and indicators of internal educational quality for Bilingual Schools in Early Childhood Education Level.

Researcher has synthesized standards and indicators for Internal educational assurance in Early Childhood Education Level for Bilingual Schools from 10 country with possession of Top score on PISA'2009 The synthesis of the result includes 5 part, 13 standards and 58 indicators.

The result of content validity checking of standards and indicators by 20 experts has attained Item Objective Congruence Index (IOC) value of 0.80 to 1.00 and consistency of indicators and evidence or resources that displays the result of implementation in each indicators by 4 experts has attain Item Objective Congruence Index (IOC) value of 0.75 to 1.00. Later provided with 2 suggestions on specific issues: 1) Suggest adding indicators according to the description of standards including standards 1, 4, 5, 9, 10, 11, 12) Suggest separating indicators which have different issues on measurement including indicator 2.1, 3.1, 3.2 ,3.4 , 3.5 , 5.10 . Then, the result concluded was 13 standards and 76 indicators.

The result of Exploratory Factor Analysis (EFA) from the first 380 data samples found out that 76 indicators can be separate into 8 factors and the cumulative percent of variance is equal 70.117.

The result of checking consistency between standards and indicators model with empirical data from last 520 samples by means of Second-Order Confirmatory Factor Analysis found out that it fits with the model at $\chi^2 = 2860.034$, $df = 2766$, $p\text{-value} = .1040$, $CFI = .998$, $TLI = .998$, $RMSEA = .008$, $SRMR = .051$.

2. The results of model construction of Internal Educational Quality Assurance for Bilingual Schools in Early Childhood Education Level found out that the model has 4 major factors including 1) The goal of Internal Educational Quality Assurance model for Bilingual Schools in Early Childhood Education Level 2) Standards and indicators of Internal Assurance 3) The process of Internal Educational Quality Assurance model for Bilingual Schools in Early Childhood Education Level according to the standards and indicators including responsible people, quality control, quality audit, quality assessment and criteria of assessment and 3) The report and Development to achieve Excellency. The result of qualities analysis of the model by experts found out that the result of judgment on accuracy, propriety, feasibility and utility of all issue of the model were suitable, thus experts have made 7 suggestions including 1) The model development should be excellent due to Bilingual schools having admirable contexts which can be developed to their highest potential. 2) The model should exterminate similar report from ONESQA due to difference in criteria and objective from ONESQA. 3) The model should change the name of indicators which can specify Bilingual schools. 4) The model criteria should be revised due to each indicator having different

judgment scale according to factor loading. 5) The model factor loading should be revised along with each standard correlate ratio of factor loading from the result of Second-Order Confirmatory Factor Analysis. 6) The model should be adding and revising the requirements of committee in group 3 which include having experience in education management and education quality assessment, lastly 7) The model should be adding menu guidelines in order to develop further in the program. Although the school achieves high scores, they can still search and develop guideline for greater Excellency.

3. The trial model results on Internal Educational Quality Assurance for Bilingual Schools in Early Childhood Education Level in Internal Quality Assessment part were used thrice in 3 Bilingual schools including medium school, large school and small school. The result of using the model reported that the judgment on accuracy, propriety, feasibility and utility of model had reached highest score with few suggestions of revising the model from users as the follows.

The result of 1st trial : The result from Brainstorming process gave out 3 significant suggestions for revision of the model including 1) The model should be adding indicators resource which are similar in order to differentiate them according to suggestion of assessment committee involved in field information record. 2) Standards and indicators about physical and intellectual development of students should be revised and modified into percentage criteria or into mean of percentage form in case of multiple issues, lastly 3) The report should represent the result in 2 decimal form.

The result of 2nd trial : The suggestion from users were the model should be adding English version which will be suitable for foreign teachers and data can be used immediately.

The result of 3rd trial : The model were completely oriented. The users didn't have any suggestion.

The results of concurrent validity analysis of the model on Internal Educational Quality Assurance for Bilingual Schools in Early Childhood Education Level according to the scores of internal quality checking from all 8 indicators and the total result were related to the model at coefficient .01 ,receiving relation score of 0.999.

5.2 Discussion

1. The synthesis result of standards and indicators of internal educational quality for Bilingual Schools in Early Childhood Education Level contains 5 part, 13 standards and 58 indicators Synthesized.

The research findings are in accordance with the assessment to development theoretically. The assessments for evaluation of data with criteria then information were used in guideline or revision. Similarly, standards and indicators of External Quality Assurance of Thailand on Third round (2011-2015) in Early Childhood Education Level (2-5 years) by the Office of National Education Standards and Quality Assessment (ONESQA, 2011, p 24-53). In addition, the research found new standards and indicators including standards of the students self-care and interaction among multicultural society (5 indicators), standards of general management (4 indicators) and standards of the teachers quality promotion (3 indicators). All were related with standards of UNESCO, Finland, Korea, Shanghai China, Hong Kong China, Singapore, Canada, New Zealand, Japan, Australia, Netherlands, UNESCO bilingual school and World Class bilingual school (Yaowatiwa Nammakhun, 2011,p 42-50)

The result of content validity of standards and indicators conspired on Internal Educational Quality Assurance for Bilingual Schools in Early Childhood Education Level by experts found Item Objective Congruence Index (IOC) value more than 0.80. The last result produces 13 standards and 76 indicators. The research providing such result due to experts on measurement and evaluation found some indicators have different issue on measurement so they should be separated. For example, indicator 3.2 students are discipline and honest must be separated in to 1) students having discipline and responsibility for the task assigned and 2) students are honest. Like the sayings of Sirichai Kanjanawasee(2001, p 36) who stated that features of a good indicators were cogent measuring, integral measuring, reliable measuring, without bias, explain different of variables and easy to use.

The result of structure validity and consistency between standards and indicators model with empirical data by Exploratory Factor Analysis (EFA) are 8 standards and 76 indicators and the result of Second-Order Confirmatory Factor Analysis (2nd. Order CFA) found out that it fits with the hypothetic model in the highest level according to criteria of model fit of Hox, Goggin, Steiger, Fan&Sivo, Shamar, Mukherjee, Kumar &

Dillon and Kelloway cited in Sunthorapoj Dumrongpanij (2012, p 33). The research appears to be as mentioned above due to the researcher having studied upon the concept, theory, literature and researches related to education assurance, as well as concept and principle to construct standard and indicators with in country and out of country. Beside, The research used Exploratory Factor Analysis (EFA) statistic to check structure validity and set up hypothetic model. Followed by using a Second-Order Confirmatory Factor Analysis (2nd. Order CFA) statistic in order to check consistency between standards and indicators model with empirical data. This shows the ability to predict the Internal Educational Quality Assurance for Bilingual Schools in Early Childhood Education Level by these standards and indicators. Similar to the sayings of Rattana Buosonte (2012, p163-175) who stated that checking quality of indicators were having 2 steps including 1) Checking by the concept theory and 2) Checking by statistic. In addition, considering the level of factors weight found 1) 1st Standard about Educational management 2) 5th Standard about Administrators performance efficiency and effectiveness 3) 8th Standard about Teacher quality promotion 4) 4th Standard about Teacher performance efficiency and effectiveness 5) 3rd Standard General management 6) 2nd Standard Physical and intellectual development of students 7) 7th Standard Students emotions and mentality development 8) 6th Standard Students have self-care and interaction in multicultural society. This represents the statement that Administrators and teachers were the main factor to the success of internal assurance system. Their findings are similarly parallel with the research findings of Yaowatiwa Nammakhun (2013) who had studied and found out that the factors must have impact to success of internal assurance system including 1) the first was the team work of staff (15.69 %) 2) The second was leadership and attitude of staff about internal assurance (13.73 %). Considering each of the standard, bilingual schools must increase standards about self-care and interaction in multicultural society. Apart from that the school must especially increase indicators on Students sufficient Thai language skills. Teachers can academically communicate in their native and second languages; moreover, administrator should be able to provide leadership in creating an organization of cultures and learning. The findings must be similarly paralleled with the standards of UNESCO bilingual school, World Class bilingual school, Finland, Shanghai_China, Siggapore, Canada, New Zealand, Netherlands and Australia.

2. The results of model construction and development of Internal Educational Quality Assurance for Bilingual Schools in Early Childhood Education Level found the model are 4 factors including 1) The goal of Internal Educational Quality Assurance model for Bilingual Schools in Early Childhood Education Level 2) Standards and indicators of Internal Assurance. 3) The process of Internal Educational Quality Assurance model for Bilingual Schools in Early Childhood Education Level according to the standards and indicators including responsible coordination, quality control, quality audit, quality assessment and criteria of assessment and 4) The report and development to achieve excellence. These findings are also similarly paralleled with the research findings of Wassana Sang-ngam (2000), Saowandee Phanmueng (2001), Sujittra Phahongsa (2001), Mongkhon Chaithongrat (2008), Chonchakorn Worain (2007), Tipawan Lekawattana (2009), Suthep Chityawong (2009), Maitree Boonrod (2011), Office of the Basic Education Commission of Thailand (2009), Dale (1995) and Murgatroyd & Morgan (1994) whom studies establish 4 factors of internal assurance model including 1) The goal of Internal Educational Quality Assurance model which used to scope of procedure. 2) Standards and indicators of Internal Assurance which were regulation or quality level checking of educational quality and criteria for assessment. 3) The process of Internal Educational Quality Assurance model for Bilingual Schools in Early Childhood Education Level according to the standards and indicators including responsible coordination, quality control, quality audit, quality assessment and criteria of assessment and 4) The report and development to achieve excellence.

3. The results of the trial of the model on Internal Educational Quality Assurance for Bilingual Schools in Early Childhood Education Level in Internal Quality Assessment part were used thrice in 3 types of Bilingual schools including medium school, large school and small school. The results of concurrent validity analysis of the model on Internal Educational Quality Assurance for Bilingual Schools in Early Childhood Education Level checked the model according to the scores of internal quality checking from all 8 indicators from the total result are related to the model at coefficient .01 with relation score at 0.999 which was in highest level according to the relation score criteria of Bath, 2010 cited in Supamas Augsuchoti, SUPAMAS ANGsuchoti, (2008) with such reason the model was developed according R&D

concept which had an objective to find a new innovation and can be legitimately used to solve problems. Like the saying of Rattana Buosonte (2012) who stated that the obtainable standards and indicators of the model from synthesis which covers national and internationally were all checked by experts specialized for the topic and analyze data on qualitative and quantitative with context cover of the research. All of that will affect the model on Internal Educational Quality Assurance for Bilingual Schools in Early Childhood Education Level had concurrent validity in highest level. The users assessed model quality upon accuracy, propriety, feasibility and utility , all of them were in highest level. Due to the research model has been developing according to assessment and development concept borrowed from Boorapatit Ploysuwan (2012) who stated that these concept had an objective to evaluate data with criteria then use its information to revise for the development. There were 6 steps 1) Defining the scope of population and methodology. 2) Choosing the best way to succeed according objective. 3) Handout duty, Clarify understandings into practice. 4) Performance audit 5) revise then continue performing. And 6) Applying the assessment result in to development. This research then begins researching and developing accordingly to a concept borrowed from Somsak Phoowipadawat (2011) who stated that R&D concept had an objective to develop until the product reach its highest potential, giving the best performance and is able to satisfy the user's demand. Although, R&D concept must be retested intermittently with undeniably large amount of steps with a lot of budget demands, the result of R&D matched the requirement outstandingly. Furthermore, the researcher then prepare every element including participant observation, facility, collecting data and revision of the model to show the every users during the trial of the model.

5.3 Suggestion

Suggestion on the application of the model

1. The research find out that the standards had high level factors loading and with such reason make directors and teachers as the main factor to the success of internal assurance system.
2. The synthesis result of indicators on Internal Educational Quality Assurance for Bilingual Schools in Early Childhood Education Level produces 76 indicators and each

indicator displays different factor loading which show high factors loading. This can predict educational quality better than those with lower factors loading. So, if users cannot use all of indicators at once then they are suggested choosing indicators with higher factors loading respectively.

Suggestion for future research

1. The research is only a trial in Internal Quality Assessment part due the researcher having limitation in management upon the sample groups. Experts suggest further research to be separated in to 3 trial parts including 1) Quality Control, 2) Quality Audit and 3) Quality Assessment. According to this more information can be recorded for further revision of the model.

2. The synthesis result of indicators on Internal Educational Quality Assurance for Bilingual Schools in Early Childhood Education Level gives out 76 indicators. It is far difficult to use due to the fact that there are too many indicators. Such reason will provoke issues for further research. Experts suggest each factor to be analyzed by Exploratory Factor Analysis (EFA) to decrease indicators followed by checking consistency of standards and indicators of the model with empirical data by Second-Order Confirmatory Factor Analysis (2nd. Order CFA). This solution can solve the problem about sample size according to number of free parameters.

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved