# Teachers' Understanding and Practice towards Thematic Approach in Teaching Integrated Living Skills (ILS) in Malaysia

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### Abstract

Thematic approach is one of the teaching strategy that uses themes towards creating an active, interesting and meaningful learning. The purpose of this research is to identify the teachers' understanding and practice towards thematic approach in teaching Integrated Living Skills (ILS). A total of 132 Integrated Living Skills teachers were involved in this study. This research was conducted in the District of Kinta Utara, Perak, Malaysia and the instruments used were questionnaires. The finding indicated that the Integrated Living Skills teachers' understanding level towards thematic approach is high. Findings also showed that ILS teacher were often using thematic approach in teaching Integrated Living Skills. There is a significant relationship between teachers' understanding level towards thematic approach with teachers' constant practice. The findings also shows teachers' years of experience in teaching were not significantly different from their practices on thematic approach.

Keywords: Thematic Approach, Integrated Living Skills Subject, Teacher Understanding, Teacher Practice

# 1. Introduction

In Malaysia, Integrated Living Skills (ILS) is a practical study which characterizes fully on technology and is offered to all students in lower secondary school (Form 1 to Form 3). This subject is designed as an effort to increase the technological skills and entrepreneurship among the students. The ILS subject provides the useful skills for functional purposes, so that students can act and arrange their daily life in technology worldwide as the complex industry changes globally. Hopefully the students have a positive attitude such as appreciating the high quality of work and innovation on project invention, confidence and independently in their effort. The ILS learning activities basically focuses on the easy self doing daily routine works likes fixing, building, repairing and servicing. Besides that students have the opportunity to learn cooking, sewing, planting, livestock, accounting and business.

The ILS subject main purpose is to provide students with independent, understanding of technology, economic, creativity, and self confidence within the changes of technology in the daily life. Besides that, the ILS is designed to supply the fast growing industry with manpower with knowledge, skilled in technology, the economy and their willingness to cooperate and learning in the work environment. Students choose one of four options learning in the ILS which are Technical Skills (Option1), Home Science (Option 2), Agriculture (Option 3), Commerce and Entrepreneurship (Option 4). Options students remain from Form 1 to Form 3. ILS subject is divided into two sections of the core and option. Section core contains a field learning of The Technology and Design which must be learned by all the students.

Teacher needs to be knowledgeable in contents as well as competent with skills to teach this subject. Various methods and approaches should be exploited and practiced by teachers in delivering each and every different topic. The teaching methods chosen by teachers should fulfill students' needs and requirements.

The ILS teachers have multiple choices to plan their teaching individually, cooperatively or thematically. The ILS teachers' decision in planning teaching and learning process in classrooms or workplace will influence the students' motivation, socioeconomic, languages, ability, relationship with other people, knowledge, attitudes and achievement in Integrated Living Skills subject. Thus, to increase students' achievement, teachers need to choose a teaching method that can engage teacher and students to learn together. The thematic learning will bring benefit to teachers and students. Yorks and Follo (1993) suggest that students learn better from thematic, interdisciplinary instruction than from a traditional, single-subject curriculum.

Jacobs (1989) defines interdisciplinary instruction as a knowledge view and curricular approach that consciously applies methodology and languages from more than one discipline to examine a central theme, issue, problem, topic, or experience. Furthermore, knowledge and skills have been unified in integrated thematic instruction within the context of theme and activities (Beane, 1993). According to Malaysia Curriculum Development Centre (2003) thematic approach is an effort to integrate knowledge, skills and values learning and creative thinking using the theme. Teachers should encourage pupils to participate actively and physically in the process as a form of natural learning. Teachers should try to provide meaningful learning experience to the students so that they do not only have fun but also show and display an interest in searching further from their own information. Students should also be given an opportunity to be independent, explore and experience learning themselves. Thematic learning process will help students to think creatively and critically. Thematic approach is the meaningful learning for students because they learn to do independently.

Students with lower achievement always think that learning is difficult to be understood, feel anxiously to face teachers and friends and feel unhappy and embarrassed when they are in schools (Ministry of Education Malaysia, 2002). Lower Secondary Assessment 2010 in Perak state indicated that 2136 students obtained E grade in the ILS subject. 31.97% of the students came from Kinta Utara district of Perak. This percentage proves that there are still a lot of students who are below par and unable to master the ILS subject at a minimum level (Grade D) although the ILS subject engages in teaching and learning approach in theory and practical. The problem always reported by ILS teachers are such as students' laziness, students' truancy, not interested, less motivation, difficult to understand the content and not fully focused (Ramlah, Norhayati, Sharifah, Arshad, Wan Zah, Kamariah, Othman, Rohani, Rasid, & Suria, 2006). Previous studies show that thematic approach increased the students' achievement (Cook, 2009; Burton, 2001; McGehee, 2001; Henderson & Landesman, 1995; Kovalik, 1994; Pepple & O' Connor, 1992), students' interest (Cuningham, 2010; Hale, 2010; Ruby Chi, 2009; Kostelink, Soderman & Whiren, 2004), students' attitude (Putwain, Whiteley, & Caddick, 2008; O' Neal, 1998).

Thematic instruction may provide an effective way to contextualize instruction. It incorporates a concrete learning by-doing orientation and has the potential to facilitate cooperative and interactive learning opportunities in the classroom (Henderson & Landesman, 1995). Kucer (1991) points out the advantages of using a thematic approach to curriculum design are a thematic approach which encourages the teachers to start with students' strength and utilize their relevant background knowledge. Well-chosen themes engage and allow students to explore concepts from variety of perspectives and viewpoints. Themes allow for the use of many different resources at varying degrees of difficulty, so that all students can participate. Besides that, themes provide context for real-life reading and writing activities, scientific investigations, and inquires in a variety of subject areas. Furthermore, a thematic curriculum provides students with opportunities for independent learning, problem solving, divergent thinking, risk-taking, and choice.

Nik Aisah (2005) found that kindergarten teachers had a positive perception towards implementation of thematic approach in the teaching and learning process. Thematic unit instruction is able to improve University Technology MARA Malaysia (UiTM) students' reading and writing abilities. The improvement came about as a result of a more focused, meaningful and authentic learning experience. Students not only became more engaged and motivated, but their character was also positive shaped. They also indicated that planning thematic unit should allow for incorporation of a variety of language concepts into topic area that is interesting and worthy of study which gives students a reason to use the language. Teachers should choose themes that lend themselves to teaching language that will be useful for their students (Naginder and Rohayah, 2006). Handal and Bobis (2004) stated that the poor attitude and lack of motivation of students to learn mathematics using a thematic approach was another challenge reported by teachers. An interviewee mentioned that if the theme did not interest the students they would *switch-off* and then it would be difficult to recover their attention in class.

Most teachers expressed their belief that a procedural instruction approach based on rules and formulae was the most suitable one for instilling mathematical abilities in students. Colasanti and Follo (1992) suggested that a theme study will not be successful unless the teacher is able to communicate to the students what they are learning, why they are learning it, and most importantly, how it fits into larger scheme of their education and their lives. Teacher should help students' make connection between different areas of knowledge that makes a theme came to life in the classroom. The teachers' ratings of overall thematic experience were very positive. Teacher indicated a willingness to engage in a similar teaching unit in the future (Armstrong & Dubert, 1995).

Bergeron and Rudenga (1993) emphasized that teacher descried the activities generated from the themes core to be personal, active, integrative, and purposeful. The personal component relates to teachers' perception that themes are fun for both them and their students, and that the classes become personally involved with their lessons. Teachers also perceived that within thematic learning involvement is provided through concrete, hands-on experiences that integrated content areas of the curriculum through the common core. Besides that, teachers perceived that themes were purposeful because they provided experience meaningful to students.

According Bergeron and Rudenga (1993), teachers reported the barriers such as time constraints, curriculum demands, traditional thinking, and uncertainty obstruct and hamper their implementation of thematic instruction. Teachers felt that the integrated theme required extensive planning time, similarly grouped students, and collaboration (Cook, 2009). Miller and Davison (1997) also supported that teachers are themselves taught in isolated disciplines in both content and methodologies. Teachers training institution have not adequately prepared teachers to make the transition from an isolated subject-based curriculum to a more integrated one. Consequently, teachers in the elementary and secondary school system have difficulty thinking in a holistic and integrated. George (1996) argued that most teachers did not understand curricular integration nor did they feel comfortable with various subjects.

One of the elective components in the ILS is Design and Production Project. In teaching this topic, the ILS teachers utilize the theme as guidelines to help students identify problems or needs to be resolved when invention a project. Theme well-chosen should be related to the problems facing students in their daily life. After that, students gather information and data through observation, visits, brainstorming, reading, surfing the Internet, research and teacher guidance. Besides that, teachers use design information such as function, appearance, safety, and cost products available to help students get ideas. Students will solve problems using mind maps, free sketches, brainstorming and discussion in the group with students shaping at least three project design based on the theme and discuss the strengths and weakness of materials that will be used and chose the most suitable. Lastly, students will build a project based on the selected drawing (the ILS Curriculum Specification, 2002).

Thematic approach is an alternative teaching technique which can be used by the ILS teachers to improve their students' achievement. Currently, researches about thematic approach in Malaysia are not widely explored. The purpose of the study is to determine the teachers understanding and practice towards thematic approach in teaching the ILS subject. In order to measure teachers understanding and practice towards thematic approach, among the research question:

- i. What is the level of ILS teachers' understanding and teachers' practice towards thematic approach?
- ii. Is there an association between the levels of ILS teachers' understanding and their practices towards thematic approach?
- iii. Is there a difference between the ILS teachers' years of experience and their practices on thematic approach?

# 2. Methodology

A quantitative approach is used in this study, specifically, using a survey method to collect the data through a questionnaire. The questionnaires are distributed to teachers from 46 secondary schools in Kinta Utara District, Perak, Malaysia. A total of 132 ILS teachers selected in this study through simple random sampling table. These sampling teaching four different options of the ILS subject, namely Technical Skills, Home Science, Agriculture, and Commerce and Entrepreneurship.

The questionnaires contained three parts: Part A, Part B and Part C. Part A is used to collect demographic information from the respondents. Demographic items included option, academic qualification, teaching experience, and exposure to the thematic approach. Part B is the questionnaire to identify the level of teachers' understanding towards thematic approach in teaching the ILS. Subjects were asked to respond to statements using a five point Likert scale format: 1 =Strongly Not Understand, 2 =Not Understand, 3 =Less Understand, 4 =Understand, 5 =Strongly Understand. All items are a positive item. Finally, Part C that contained item to measure the teachers' practices towards thematic approach in teaching the ILS. Researcher rated the item on a five point Likert-type scale (1 =Never, 2 =Seldom, 3 =Sometime, 4 =Often, 5 =Very Often). Cronbach Alpha test was used to analyses the inter item consistency reliability of the questionnaire. The alpha coefficient for teachers understanding towards thematic approach in teaching the ILS was .92, whereas for teachers' practices towards thematic approach in teaching the ILS was .92, whereas for teachers' practices towards thematic approach in teaching the ILS was .92, whereas for teachers' practices towards thematic approach in teaching the ILS was .92, whereas for teachers' practices towards thematic approach in teaching the ILS was .92, whereas for teachers' practices towards thematic approach in teaching the ILS was .92, whereas for teachers' practices towards thematic approach in teaching the ILS was .92, whereas for teachers' practices towards thematic approach in teaching the ILS was .92, whereas for teachers' practices towards thematic approach in teaching the ILS was .92, whereas for teachers' practices towards thematic approach in teaching the ILS was .92, whereas for teachers' practices towards thematic approach in teaching the ILS was .92, whereas for teachers' practices towards thematic approach in teaching the ILS was .92, whereas

Data was analyzed by IBM SPSS software to yield means, standard deviation, t-test and Pearson correlation. Interpretation means score for teachers understanding and teachers practices are based on Nunnally (1978); 1.00 - 2.00 (Low), 2.01 - 3.00 (Medium Low), 3.01 - 4.00 (Medium High), and 4.01 - 5.00 (High). For the correlation between the variables, researcher use Cohen (1978) for interpretation; .10 - .29 (Weak), .30 - .49 (Moderate), and .50 - 1.0 (Strong).

#### 3. Findings and Discussions

This section presents the result of the study followed by discussions according to each research question.

#### **3.1Teachers' understanding**

Table 1 shows the level of teachers' understanding towards thematic approach in teaching the ILS. Based on the Nunnally (1978), the level of ILS teachers' understanding towards thematic approach in teaching the ILS is high (M=4.07, SD=.23).

Item	Mean	SD
Teachers and students experience need to be engaged before start teaching	4.21	.46
thematically		
Planning the activities with consideration of students interest, ability and	4.18	.48
experience		
Theme can create an attractive idea	4.17	.44
The theme chosen should be related to the students life and experience	4.17	.42
Teacher and student involved in thematic teaching	4.16	.46
Encourage students to think critically and creatively	4.16	.42
Teaching using thematic approach need creativity	4.15	.42
Various activities combined when carry out the activities	4.14	.43
Teaching and develop theme need a lot of idea	4.11	.41
Theme give direction and purpose in planning teaching and learning		.43
Give students opportunity to be independently	4.08	.39
Learning through theme or topic correspond to the times, place, interest, and		.47
students background		
Students get meaningful learning experience	4.05	.47
Students- centred strategies	4.03	.46
Thematic approach engage hand-on activities	4.02	.52
Students involve actively in thematic approach		.49
Thematic approach is one of the integrated approach		.49
Thematic unit consists of facts, topic and themes		.49
Thematic approach is a holistic, innovative, and authentic learning model		.51
Integration across subject area	3.85	.53
Overall	4.07	.23

Table 1. A level of teacher understanding towards thematic approach

The high level of understanding indicated that the ILS teachers' have knowledge about thematic approach and this situation will influence the ILS teachers' to use thematic approach as a teaching and learning methods. The adoption of an integrated curriculum demands thorough understanding of the approach (Simanu-Klutz, 1997).

Findings show that the highest mean score for the statements are teacher and student experience need to be engaged before starting to teach thematically (M=4.21, SD=.46). The theme is directly tied to children's real-life experience, building on what they know and what they want to know more about (Kostelink, Soderman, & Whiren, 1993).

Besides that, teachers' understanding towards planning the activities with consideration of students interest, abilities and experience recorded the high mean score (M=4.18, SD=.48). A thematic approach encourages the teacher to start with students' strengths and utilize their relevant background knowledge (Kucer, 1991). In addition, Feng (1994) said that teachers select such ideas, keeping in mind children's interest, their developmental capacities, and ecological context in which they live and learn. Furthermore, teachers also know that themes can create an attractive idea and the theme chosen should relate to the students' interactive life and experience. Both statements recorded the same mean score (M=4.17).

Table 1 also indicates that teachers' understanding is very high about the teachers and students involved in the thematic teaching (M=4.16). Teachers realized that cooperation between teacher and student is very important in thematic learning especially in giving encouragement and opportunity to students to involve in teaching and learning process. This situation of learning can increase the enthusiasm to involve actively in the thematic learning. Teachers and students will select the theme together (Bottom & Sharpe, 1996). Teachers also realized that thematic approach engage hands-on activities. Thematic instruction incorporates a learn by doing orientation with hand on activities and facilitates cooperative and interactive learning in the classroom (Henderson & Landesman, 1995).

Teachers are aware that thematic approach encourages students to think critically and creatively in the teaching and learning process and the teachers act as facilitators in aiding students' learning. They are playing the important role to assist students to think critically and creatively. So, theme chosen should be relevant to the students' life and the theme must be interesting to students (Johannessen, 2000).

Finding reports that two statements score have the lower mean (M=3.83). They are the integration across subject area and thematic approach is a holistic, innovative, and authentic learning model. According to George (1996) most teachers did not understand curricular integration nor did they feel comfortable with various subjects. Besides that, Miller and Davison (1997) also support that teachers are themselves taught in isolated disciplines in both content and methodologies. As a result, teachers in the elementary and secondary school system have difficulty in making the subject holistic and integrated.

#### 3.2 Teachers' practices

From the Table 2, the interpretation of the mean score overall is medium high (M=3.98). The highest mean scores are using various teaching technique (M=4.30, SD=.52). Based on findings, we know that ILS teachers' are using various teaching techniques in teaching and learning process in the classroom. According to Kovalik (1989), instructional strategies included many different types of proven delivery models such as cooperative learning, balancing effective teacher-direct instruction with guided learning, imaging and questioning strategies that allow students to acquire knowledge, inquiring learning, critical thinking strategies, relating education to real world situation, and teaching students how to use multiple sources.

Teachers' practices item	Mean	SD
Use various of teaching technique	4.30	.52
Encourages students to give ideas	4.23	.57
Make reflection after teaching session	4.20	.57
Conclude the lesson presented	4.12	.62
Encourages students to think creatively	4.10	.53
Begins the lessons with asking question based on students' interest to encourage students enthusiasm to learn	4.09	.61
Give opportunity to students to be independent in learning activities	4.07	.64
Teaching approach was students-centred	4.05	.60
Planning learning activities involve hand-on	4.05	.54
Integrate knowledge, skills and values learning	4.02	.57
Planning various activities to attractive students	4.00	.55
Planning teaching approach with the consideration of students interest, abilities and experience	3.99	.55
Guide the students to conclude the lessons	3.89	.57
Collaborate with colleague to planning the project design theme	3.89	.68
Using the teaching approach engage the connection between subject	3.83	.60
Combined language, values and skills between subject while students carry out learning activities	3.81	.58
Planning activities enable the students to explore the theme deeply	3.76	.64
Opportunity for students to experience the different situation	3.71	.66
Involved the outdoor learning activities	3.45	.66
Overall	3.98	.37

#### Table 2. Teacher practices towards thematic approach

Teachers also very often encourage the students to give ideas (M=4.23). Besides that, teachers usually make reflection after a thorough teaching session (M=4.12) and concluded the lesson presented in the classroom or workplace. In additional, teachers always encourage the students to think creatively. By reflecting a lesson taught, it indirectly fulfills the purpose of Malaysia Ministry of Education expectations to let teachers do self-reflection after the thematic teaching session. Reflection is important because the knowledgeable teacher will use various approaches in teaching. The critical reflection will bring the deep understanding towards teaching and thus repairing and upgrading the teaching weaknesses to make the teaching and learning process more effective. Self-reflection can be considered a useful tool in practice to increase teachers' confidence level or they can try other options by doing the assessment for effectiveness.

Teachers begin the lessons with asking question based on students' interest to encourage them to learn, recorded the high mean score (M=4.09). The characteristics of good introductory activities in thematic teaching are to raise key unit questions. Often this will involve thinking about the various dimensions of the theme. Based on the content, material and text, teachers' thinking about the key unit question that will guide the unit. A good introductory activity was based on the prior knowledge and helps students make connection to the theme of the unit. Besides that, teachers can provide scaffolding that helps students begin to understand and make connections to the theme. Thus, teachers can begin a unit with an activity that will generate interest and enthusiasm (Johannessen, 1997).

The ILS teachers always give opportunity for students to be independent in learning activities. Finding shows that the means scores for this item is 4.07. Thematic approach gives students opportunity to be more independent, explore, and doing the hands-on activity by actively involving in the learning process. Thematic learning is an innovative learning model which the themes chosen are related to real-life experience. Thematic approach is able to develop the students' potential holistically. The teachers frequently plan learning activities involved hands-on since the subject engages practical learning. Thematic learning easily works with student centered approach and hands-on activities. These will jump start children's interest and be motivated while they learn important concept and skills (Benson, 2004). The hands-on activity will increase the students' involvement in the teaching and learning process. The findings also show that the ILS teachers often collaborate with colleague to plan the project design theme. Teachers can share their ideas together regarding themes, issues, problems and topics.

This collaboration will make the teaching and learning planning more effective, creative, and beneficial to students. Teachers who plan thematic unit together find that workload is easier and planning become more dynamic and satisfying (Vardell, 1995). Besides that, Wendt (1994) found that when teachers worked together, cooperation and resources sharing increased. The lower mean score is a statement about the teachers' planning activities which enables the students to explore the theme deeply. The mean score was 3.76 compared with the outdoor learning activities (3.71). Teachers need more times to plan their activities. Teachers report that barriers such as time constraints, curriculum demands, traditional thinking, and uncertainty obstruct and hamper their implementation of thematic instruction (Bergeron & Rudenga, 1993).

### 3.3 Relationships between Teachers' Understanding and Teachers' Practices

Table 3 shows that teachers' understanding and teachers practices were significantly correlated. The strong positive correlation, which would be considered a very small effect size (0.28), was between the teachers' understanding and teacher practices, r(132) = .50, p = 0.001. This means that teachers' understanding will influence the teachers' practices using thematic approach in teaching the ILS subject.

Table 3. Correlation, Means, and Standard Deviation for Teacher Understanding and Teacher Practices (n = 132)

Variable	Teachers' Practices	М	SD
Teachers' understanding	.50**	4.07	.27
Teachers' practices	-	3.98	.37

*Note:\*\*p* = .001

The findings indicated that teachers' understanding and teaching practices are related towards thematic approach. The higher understanding will influence the teachers' confidence to use this approach in their daily teaching approach in classroom. They will try to use this approach in teaching the ILS subject. According to Boyd (1995) teachers reporting training in thematic approach were likely to use whole language thematic unit more frequently than those without training.

Besides that, the higher understanding towards thematic approach will help teachers to provide the systematic ILS lesson plan to convey the knowledge, values, and skills for students. The higher level of understanding about thematic approach influence teachers' practices in choosing the suitable theme to convey the lessons. Teachers' will plan the activities which can make the learning more interesting, fun, meaningful, and somehow connects with students' real-life experience.

### 3.4 Teachers' Experience and Teachers' Practices towards Thematic Approach

Table 4 shows the results of teacher's years of experience in teaching with their thematic practices for the ILS subject. The finding shows that teachers' experience were not significantly different from teachers' practices (p = .320). The effect size *d* is approximately .17, which is small. Teachers' daily practices towards thematic approach in classroom are unrelated to teachers' experience. The findings are different from Boyd (1995) that teachers with interdisciplinary experience were more likely to use thematic unit strategies than those without experience. Teachers without experience need to be more practical in their approach when dealing with thematic unit strategies, usefulness of these strategies need to be incorporated and instilled into their students daily activities thus creating a thematic environment to make it look more interesting and approachable. As can be seen, daily practices are more useful than experience in dealing with thematic unit strategies.

Table 4. Comparison of teacher years of experience on a teacher practi	ice
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Variable	М	SD	t	df	р	d
Teachers' practice			.999	130	.320	.17
Below 5 years	4.02	.34				
More than 5 years	3.96	.38				

#### 4. Summary and Conclusion

The level of the ILS teachers' understanding towards thematic approach in teaching ILS subject overall is high. This means that ILS teachers know and understand the characteristics of thematic approach. A clear understanding of the thematic approach is the first step to encourage the ILS teachers to use this approach in their daily teaching practices in the classroom or workplace. Teachers need to understand learning in order to develop a meaningful curriculum and connect with students (Olsen, 2004). The deep understanding regarding thematic approach helps teachers to make thematic teaching planning more easier. ILS teachers can develop the more meaningful learning and enable to encourage students to learn and be more motivated. However, the teachers' understanding towards integration across subject area was lower. Some previous research studies support that teachers did not understand curricular integration and connection with various subjects (George, 1996; Miller & Davision, 1997).

From teachers' practice aspect, findings show that teachers often use the thematic approach to teaching ILS subject. The thematic approach makes teachers' teaching more planned, systematic, active and interesting. Besides that, respondents suggest that teaching and learning process are easily implemented through a theme approach and can increase their creativity. Colasanti and Follo (1992) suggest that by implementing high interest theme studies, teacher can motivate and actively involve their students in meaningful learning. On the other hand, thematic approach will be able to encourage students to think critically, creatively and innovatively. Teachers and students also will be more focused on their project design process. Lipson et al. (1993) analyze the underlying rationale for thematic teaching as providing valuable focus and helping students understand why they are doing what they are doing.

This study suggests that encouragement should be given to teachers in using thematic approach as a strategy in teaching and learning ILS subject to improve the students achievement. Furthermore, the Ministry of Education Malaysia should give more support and encouragement to the ILS teachers' to use and put the thematic approach knowledge into their practices. Moral support from the ministry will give confidence to teachers to use thematic approach as a strategy in their teaching practices. On the other hand, thematic approach will bring a positive implication to students especially to create a creative, critical and innovative thinking around the students when they are involved in ILS projects. Thus, it is important to increase the ILS understanding and practices towards thematic approach in daily teaching and learning process in the classroom. The novice and experienced teachers should cooperate to create the meaningful learning to the students which connects to the students' real-life experience.

#### References

- Armstrong, J. O., & Dubert, L. A. (1995). An integrated thematic unit at a junior school with traditional scheduling. Champaign, IL: Center for the Study of Reading, University of Illinois at Urbana-Champaign.
- Beane, J. (1996). On the shoulders of Giants! The case for Curriculum integration. MiddleSchool Journal, 28(1), 6-11.
- Benson, T. R. (2004). Early childhood. Integrated teaching unit. *PBS Teachers*. Retrieved on September 8, 2011 from <u>http://www.pbs.org/teachers/earlychildhood/articels/</u>
- Bergeron, B. S., & Elizabeth , A. R. (1993). Delineating and undefining thematic instruction. Paper presented at *the 43rd* Annual Meeting of the National Reading Conference at Charleston, SC from December 1 4, 1993.
- Bottom, G., & Sharpe, D. (1996). *Teaching for understanding through integration of academic and technical education*. Atlanta, GA: Southern Regional Education Board.
- Boyd, A. (1995). The relationship of selected strategies associated with thematic approach to student achievement in New Jersey middle school. Unpublished doctoral dissertation, The Seton Hall University, New Jersey, USA.
- Burton, L. H. (2001). Interdisciplinary curriculum: Retrospect and prospect. Music Educators Journal, 87(5), 17-21.
- Colasanti, A. M., & Follo, E. (1992). Effectiveness of teaching in curriculum design and implementation in a third grade classroom, including a planning process model using the Michigan Model Core Curriculum. ERIC Document Reproduction Service. (ED 364 834).
- Cook, S. C. (2009). *Making connection: Implementing an integrated thematic instruction curriculum model to assist teacher of at-risk middle school students.* Ph.D. Dissertation. Rowan University, New Jersey, United State. Dissertation & Theses: Full Text Database (Publication No. AAT 3359922).
- Cunningham, M. K. (2010). *Efficacy of thematic unit on reading and writing: A collaborative study of a shelter unit intervention with struggling first grade reader*. Ph.D.Dissertation, The Sam Houston University, Texas, United State. Dissertation & Tesis : Full Text Database. (Publication No.AAT 3441934).

Feng, J. (1994). Issues and Trends in early childhood education. ERIC Document Reproduction Service. (ED 372 841).

- Fraenkel, J. R., & Wallen, N. E. (2006). *How to design and evaluate research in education (6th ed.)*. New York : Mc Graw Hill.
- George, P. (1996). The integrated curriculum: A reality check. *Middle School Journal*, 28(1), 12 19.
- Griffiths, M. (2009). Thematic mathematics: the combination of prime factorization. *An International Journal of the IMA*, 29(1), 25 40. ERIC Document Reproduction Service. (EJ 872 601).
- Hale, S. L. (2010). Efficacy of thematic unit on reading and writing: A collaborative study of a shelter unit intervention with struggling first grade reader. PD.Dissertation, The Sam Houston University, Texas, United States. Dissertation & Tesis : Full Text Database. (Publication No.AAT 3441936).
- Handal, B., & Bobis, J. (2004). Teaching Mathematics Thematically: Teacher Perspective. *Mathematics Education Research Journal*, 16(1), 3-18.
- Henderson, R. W. & Landesman, E. M. (1995). Effect of the thematically integrated Mathematics instruction on students of Mexican descent. *Journal of Education Research*, 88(5), 290 300.
- Jacobs, H. (1989). Interdiciplinary curriculum: Design and implementation. Alexandria, VA : ASCD.
- Johannessen, L. R. (2000). Redefining thematic teaching. ERIC Document Reproduction Service (ED448455).
- Kostelink, M. J., Soderman, A. K., & Whiren, A. P. (1993). Developmentally appropriate programs in early childhood education. New York: Merrill.
- Kostelink, M. J., Soderman, A. K., & Whiren, A. P. (2004). Developmentally appropriate curriculum: Best practices in early cildhood education. Upper Saddle River, NJ: Merrill.
- Kovalik, S. (1989). ITI the Model : Integrated thematic instruction. Kent, WA: Books for Educators.
- Kucer, S. (1991). A position paper: *Why themes?* Los Angeles, CA: Center for Language, literacy, and learning specialization, University of Southern California.
- Lipson, M., Valenica, S., Wixson, K., & Peters, C. (1993). Integration and thematic teaching: Integration to improve teaching and learning. *Language Arts*, 70 (4), 252 263.
- Miler, K. W., & Davison, D. (1997). Is thematic integration the best way to reform sience and mathematics education. *The National Science Supervison Association Journal*. Retrieved on September 10, 2011 from http:// www.Msubillings.edu/ COE Faculty/kmiller.
- Ministry of Education Malaysia. (2002). The ILS Curriculum Specification. Kuala Lumpur: Curriculum Development Centre.
- McGehee, J. J. (2001). Developing interdisciplinary units: A strategy based on problem solving. School Science and Mathematics, 101(7), 380-389.
- Naginder, K. & Rohayah, N. (2006). A case for reconstruction of the pedagogy of the Malaysian University English Test (MUET) through thematic unit instruction. *Journal of Institutional Research South East Asia*, 4(1), 5 16.
- Nik Asiah. (2005). Kindergarten teachers' perception towards theme approach. Final Master Project Report, University of Malaya.
- Nunnally, J. C. (1978). Psychometric theory. New York: McGraw-Hill.
- O'Neal, G. H. (1998). Integrated thematic instruction: A descriptive case study of students' attitudes toward school and learning. Ph.D. Dissertation, The Andrew University, MI. Dissertations & Theses: Full Text Database. (Publication No. AAT 9929071).
- Oslen, K. (2004). How education can lead the way to an integral society: A proven model for doing so already exist. *World Futures: The Journal of General Evolution*, 60(4), 287 – 293.
- Pepple, J., & O'Connor, F. (1992). An evaluation of the applied mathematics and applied communication demonstration site in Indiana. Final research report. ERIC Document Reproduction Service (ED 346 316).
- Putwain, D., Whiteley, H., & Caddick, L. (2008). Evaluation of a Thematic Approach to the Delivery of Humanities Curriculum in Key Stage 3. Paper presented at *the British Education Research Association Annual Conference*, Heriot-Watt University: Edinburgh.
- Ramlah, H., Norhayati, M., Sharifah, A., Arshad, S., Wan Zah, W. A., Kamariah, B., Othman, M., Rohani, A. T., Rasid, J., & Suria, S. (2006). Teaching technical and vocational subject and high-risk student. *Proceeding: National Conference for Technical and Vocational Education*. 9–10 December 2009. Hotel Sofitel Palm Resort, Johor Bahru, Malaysia.
- Ruby Chi Cheung Yang. (2009). Theme-based teaching in an English course for Primary ESL students in Hong Kong. *Electronic Journal of Foreign Language teaching*, 16(2), 161 – 176.
- Simanu-Klutz, L. (1997). Integrated curriculum: A reflection of life. Pacific Resources for Educational Research and Improvement. Honolulu: Washington. DC. (ED 420645).
- Vardell, S. M. (1995). Thematic units: Integrating the curriculum. Arlington: University of Texas.
- Wendt, L. (1994). Factors influencing resource sharing between agriculture and science teachers participating in the agriscience program. *Journal of Agriculture Education*, 35(3), 11-17.
- Yorks, P., & Follo, E. (1993). *Engagement rates during thematic and traditional instruction*. ERIC Document Reproduction Service . (ED 363 412).