

Title: Educational Research and Trends of Future Research in Thailand

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Abstract

The objectives of this research were to study the current situation of educational research work following the themes of the chapters of the National Education Act of 1999 ; to study the trends of future research in Thailand ; and to propose policy recommendations pertaining to the issues and approaches of conducting research and development in education.

The study was a qualitative synthesis using content analysis to summarize the findings of the research. The obtained data were classified under 12 themes , based broadly on the Thai National Education Act of 1999.

The major findings can be summarized as follows : The two themes with the largest number of research items were the national education guidelines (learning and teaching) and educational technology. The next three themes were , learners, teachers , professors and educational personnel; and educational organization and administration. Two themes with the smallest number of research items were educational resources and investment for education and goals and educational policy.

Background

The National Education Act of 1999 emphasized research and development issues. It stated clearly that the government must promote and develop research and development in educational production and educational technology. The Office of the Secretariat of the National Education Commission is also responsible for strengthening the Educational Reform Project. So the body of knowledge related to the state of the art in educational research and trends in future research will be used as guidelines for supporting and promoting the project in the right direction.

Objectives

The objectives of this research were: 1) to study the current situation of educational research work following the themes of the chapters of the National Education Act of 1999 and the amendments of 2002; 2) to study the trends of future research in Thailand ; and 3) to propose policy recommendations pertaining to the issues and approaches in conducting research and development in education.

Scope of the Study

This research synthesized educational research published during the years 2000-2003. The source material for this study was educational research published during these four years which included professional research and master's-degree and doctoral dissertations. The data obtained were classified under 12 themes , based broadly on the Thai National Education Act of 1999. These themes are 1) educational goals and policies; 2) educational rights and duties; 3) educational systems; 4) national education guidelines (the development of learning and teaching); 5) curriculum and instruction; 6) educational administration; 7) educational standards and quality assurance; 8) teachers, professors and educational personnel; 9) educational resources and investment in education; 10) educational technology; 11) learners; and 12) research related to educational reform.

Basic Assumption

It was assumed that dissertations, which were the majority of research pieces in this study, were considered to be quality research. These dissertations were approved by advisory committees. As for personal or team research, it was also approved by funding agencies.

Research Procedures

The population of this study was educational research published during 2000-2003. The source materials were randomly selected from dissertations from 12 universities (Burapha, Chiang Mai, Chulalongkorn, Kasetsart, Khon Kaen, Mahasarakham, Mahidol, Naresuan, Silapakorn, Srinakharinwirot, Sukhothaimatirat, Taksin) the Office of the Secretariat of the National Education Commission, the National Research Council , public health colleges, the Rajamangala Institutes of Technology and the Ministry of Education .

The research tool was a standard form to record the data. The form had three sections: basic data relating to the research, research context and research findings and suggestions. The form was developed from a framework for research synthesis by Somwang Pittiyanuwat (1985); Nonglak Wiratchai and Suwimol Wongwanich (1987); Supat Sukamolsan (1982); and Pennee Narot and others (1999).

A research team from four universities (Khon Kaen, Chulalongkorn, Naresuan, Srinakharinwirot) collected 1903 studies: 345 conducted by professional researchers and 42 conducted by work units, 1431 master's-degree theses, 87 doctoral dissertations from universities (Burapha, Chiang Mai, Chulalongkorn, Kasetsart, Khon Kaen, Mahasarakham, Mahidol, Naresuan, Silapakorn, Srinakharinwirot, Sukhothaimatirat, Taksin) the Office of the Secretariat of the National Education Commission , the National Research Council , public health colleges, the Rajamangala Institutes of Technology and the Ministry of Education .

The study was a qualitative synthesis using content analysis to summarize the findings of the research.

Data collection consisted of the following steps :

1. Study related documents and research on conducting research syntheses in order to develop the summary form.
2. Meeting of the research team from four universities (Khon Kaen, Chulalongkorn, Naresuan , Srinakharinwirot) and establishing a work plan.
3. Trends of future research were derived from conducting a one-day focus-group discussion at the national level. Fifty educators were invited to review the findings and participated in the focus-group discussion. The conclusions from the focus group were summarized and reported as the trends of future research.

Data analysis. Two steps were taken:

1. Qualitative data was analyzed by content analysis.
2. Quantitative data under Chapter 4 (national education guidelines) with sufficient statistical data were analyzed by meta-analysis. The rest of the qualitative data in this chapter were also analyzed by content analysis.

The findings were analyzed and synthesized for the body of knowledge based on chapters of the National Education Act 1999.

Limitations of the study

1. There was no procedure for evaluation of the research studies.
2. In the absence of a national data base on research in education, the research committee had to rely on its own knowledge in collecting the pieces of research and there is no way of knowing how much the committee may have missed.

The research works collected were the ones available on the shelves of the institutes named earlier.

Findings: The findings can be shown in Table I:

Table I Frequencies and characteristics of research, classified according to types and educational levels.

Chapters of NEA. List	Edn'l goals	Rights & duties	Edn'l system	Edn'l guide-lines	Curriculum	Edn'l Admin.	Ed standards	Edn'l person-nel	Edn'l resources	Edn'l technology	Learners	Edn'l reform	Total	Per cent
Dissertation														
Doctoral	1	1	11	21	12	11	6	5	1	10	4	4	87	4.57
Master's degree	18	43	28	533	73	145	80	121	3	217	118	51	1431	75.20
Research Work														
Personal	6	19	11	66	47	10	9	42	6	33	75	22	346	18.18
Work unit	-	2	3	11	4	2	1	2	7	2	3	3	40	2.10
Total	25	65	53	631	136	168	96	170	17	262	200	80	1903	100.0
Type/Educational Level														
Pre-School	2	1	3	27	3	8	3	4	-	7	12	10	80	4.20
Basic Education	14	13	2	493	50	129	62	89	8	165	84	40	1149	60.38
Higher Education	-	10	8	63	72	23	30	61	7	78	93	24	469	24.65
Non-formal Education	1	6	18	7	10	2	-	2	-	3	2	1	52	2.73
Informal Education	3	2	13	17	-	-	-	2	-	9	4	-	50	2.63
Continuing Education	-	2	2	1	1	1	1	1	1	-	4	1	15	0.79
Special Education	-	31	3	12	-	2	-	-	-	-	1	3	52	2.73
Entire System	5	-	4	11	-	3	-	11	1	-	-	1	36	1.89
Total	25	65	53	631	136	168	96	170	17	262	200	80	1903	100.0
Percentage	1.31	3.42	2.79	33.16	7.15	8.83	5.04	8.93	.89	13.77	10.15	4.20	100	

In Table I, there were 12 separate sections, 10 from the chapters of the National Education Act and the last two are related issues concerning learners and educational reform. For each section we report the numbers and types of studies related to the content of the Educational Act.

The major findings can be summarized as follows: The two themes with the largest number of research items were the national education guidelines (learning and teaching) (631/33.16 per cent) and educational technology (262/13.77 per cent). The next three themes were learners (200/10.51 per cent); teachers, professors and educational personnel and educational organization and administration (170 and 168/8.93 per cent and 8.83 per cent), respectively. The two themes with the smallest number of research items were educational resources and investment in education (17/0.89 per cent) and goals and educational policy (25/1.31 per cent).

When we considered each chapter, the major findings can be presented as follows:

Chapter 1: Educational goals and policies. There were 25 pieces of research. Research in this area can be summarized by reference to a number of sub-themes, as follows:

Two pieces of documentary research were the analysis of educational philosophy and the study of the ideology of a Thai philosopher_ directing good education practice for all people to be capable of solving problems.

A study of educational administrative structure and decentralization policy (e.g., research related to the functions of local sectors) found that Local Administrative Commissions had a capacity for administration at an intermediate level and they mainly provided preschool programs and informal education more than formal education.

A study of trends in the private sector in organizing education in the future predicted that the private sector would play a major role in home-school education. Research on the contribution of educational resources for 12-year-fundamental-education found that every religion contributed greatly to education and also the transfer of educational power (decentralized of authority) would save a great amount of money for government budgets.

Chapter 2: Educational rights and duties. There were 65 studies that considered educational needs. Some research looked at educational innovation for the disabled; other studies considered inclusive education and equity in educational administration. There was only one study related to law and the rights of Thai students and legal procedure. It was related to private life, rights and freedom of expression, rights to political gatherings and administrative checks and balances in educational institutes.

Chapter 3: Educational system. There were 53 studies which covered the implementation of Western ideology in the formal education system. An analysis of inclusive education showed that teachers were not well-prepared; however, there was no problem for normal students. As for non-formal education, it was found that outside people would like to have more input into non-formal educational contexts; however, in informal education, it was found that there was active community participation. One study considered the linkage of these three systems and, it was found that at the tertiary level, using the approach of the community way of life was effective in the course. Research in this area also addressed reports related to the organization of informal education by social sectors and the organization of learning resource centers under non-government agencies.

There was a research look at a strategic plan for existing tertiary institutes in the next decade and it was found that, the community would be willing to participate more in an aspect of institutional identity. The ICTs would play a major role in library services. A study related to the internationalization of Chulalongkorn university found that the university had been gearing towards this policy since the beginning. One piece of research evaluated a collaborative program for bilateral education with foreign universities and one other studied the transfer of credits from overseas universities to Thai universities.

Chapter 4: National education guidelines. There were 631 studies. The major topics in this section were:

1) Natural resources and environment. They included 32 natural resource and environmental studies, of which eleven implemented teaching models for the development of learning achievement and sixteen developed behaviors and attitudes towards environmental preservation and fourteen developed or constructed teaching approaches about environmental resources.

2) There were 13 pieces which studied the vocational education network and needs for vocational and life skills development.

3) The development of thinking process and critical thinking. There were 49 studies related to thought-processes and problem-solving. The implementation of educational material for learning achievement in every experiment showed that the experimental groups performed statistically-significantly differently than the control groups.

4) There were 41 studies related to integrated knowledge, morals, ethics, local wisdom, arts, culture and desired individual characteristics.

5) In sciences and mathematics teaching, there were 94 studies in teaching mathematics and 70 in teaching sciences. The research work could be classified into three main types :a) constructed or experimental teaching models/ techniques or educational materials for the development of learning achievement at different levels; b) construction or development of certain variables which were not particularly learning- achievement-oriented and c) research which was intended to survey or describe variables in sciences and mathematics. It was found that constructed or experimental teaching models were contributing to the students learning achievement when compared to conventional teaching approaches.

6) There were 84 studies in teaching and learning Thai language and 116 pieces in teaching and learning English. The research could be classified in the same manner as in sciences and mathematics.

7) In the areas of character-building , life – experiences, basic vocational groups, social studies and physical education, there were 52 studies.

8) There were 56 studies on the evaluation of learning. They included the development of construction of measurement and evaluation tools, testing kits and measurement techniques and the development of educational measurement and evaluation.

9) As for teaching and learning through families, community and the Local Administration Commission program for participation, there were 24 studies. It was found that the training program for participation was provided, relationships with community people were constructed and, learning networks in communities were organized.

10) As article 28 of this chapter requires the provision of curricula for different levels of education with various approaches, 136 studies were synthesized. They covered the fundamental data of curriculum organization, curriculum development, curriculum implementation and curriculum evaluation for every level and type of education.

Chapter 5: Educational administration : There were 168 studies. They covered administrative models and management of various educational levels. There was research related to leadership of educational institutes, factors contributing to work performance in schools, the situations of educational reform in learning and teaching, the status and problems of school –based management and problems of teachers in managing learning and teaching.

Chapter 6: Educational standards and quality assurance . There were 96 studies. They covered the readiness of schools for the implementation of quality assurance and the situations and problems of work performance based on standard criteria at elementary and secondary levels. It was revealed that the understanding of quality assurance among teachers and personnel was at a satisfactory level. As for factors contributing to internal evaluation, there was a study related to an information system for quality assurance and three studies related to the implementation of quality assurance from other systems into educational institutes.

Chapter 7: Teachers, professors and educational personnel. There were 170 studies. The major findings were 50 pieces of research related to pre-service training systems for the teaching profession. However, none of them related directly to a production system or evaluation of the training system. There was one research study related to the desired characteristics of teachers and one related to pre-service training.

There were 112 research studies related to the development of classroom research and the development of teachers according to the educational reform concept. Of these, some were related to factors contributing to learning and teaching in secondary schools and found that the teachers ‘ factors included knowledge and understanding in curriculum, lesson planning, and teaching procedures. Four studies reported that counseling teachers in elementary and secondary schools had problems related to time, lack of knowledge and understanding of the counseling process.

It was found that teachers had problems in the management of portfolios and information systems for instruction. At the tertiary level, teachers also wanted to produce and use instructional materials at a high level.

In development of educational supervision, it was found that teachers needed supervision at a medium level and internal supervision was needed at a high level. Especially, English teachers needed supervision at a high level in every aspect, particularly in measurement and evaluation. Five studies looked at classroom research and found that teachers needed to increase their knowledge in this area.

Promotion of values in the teaching profession. There was one piece of work that talked about teachers’ values but it was not directly related to values in the teaching profession.

There was some research that evaluated training institutes from the perspective of individual curricula but not a whole system.

Chapter 8: Educational resources and investment. There were 17 studies. The major research studies were ten pieces of research related to budgeting and investment in education and the analysis of per-head expenses in educational investment of every level of a 12- year basic education in both government and private schools. At the tertiary level, there were four research studies that concluded that the financial- support

funds mostly came from the government budget. When the budget was spent on expansion of educational services and building construction, it left less money for educational quality and academic development.

Educational resources allocation: Four studies conducted on educational resources concluded that the budget allocation system in the future should be changed from providing according to lists of items to block grants. The studies stressed that allocations should also be work- performance- based. Financial systems in higher education should be reformed by changing the role of government from educational service- provider to promoter and policy- maker and conduct follow-up and monitoring programs for efficiency and effectiveness of educational resource management.

Three studies found that the implementation of educational reform according to the 1999 Education Act under Chapter 8 has no clear direction and no basic data for the budgeting plan for per-head expenses for basic education. Two studies investigated policy and management of student loans and found that there were quite a number of students getting loans. But still it could not be demonstrated that the program was successful.

Chapter 9: Educational technology. There were 262 studies. Twelve of them covered infrastructure and distance learning organization by tertiary- level educational institutes and evaluation of media centers in elementary education. There were 194 pieces of research work related to educational innovation, teaching and learning materials, textbooks and computer - assisted instruction (CAI), including work for hearing-impaired students and the development of educational materials for learning achievement. In a study of the use of distance learning via satellite in mathematics for secondary- level students, it was found that the learning period was short and the students were not familiar with this learning approach.

As for classroom information systems, there were five studies related to the design of a computer classroom for cooperative learning, the situation of using the Internet in secondary school. It was found that there were problems in personnel and budgeting. There were 18 studies looking at the effects of educational technology on teachers and personnel ,and it was found that teachers had no time to produce CAI and had little interest in using it in classrooms. As for parents, it was found that parents were good models for students by giving suggestions. However, it was found that the bad aspect of computer learning was that students had their own world. The effects of using information systems from the mass media showed great results.

Learners . As the National Education Act aimed at producing students with desired characteristics this study investigated issues related to learners. There were 200 pieces of research work .

There were 14 studies looking at factors contributing to learners' characteristics, which were the background of the learners such as the mother's emotional stability, satisfaction with married life ,and social supports and support from relatives. Factors contributing to learning achievement included teacher factors, curricula, parents, communities and information technologies.

Factors contributing to learners' learning achievement: There were seven studies investigating reasons for attending intensive courses after school among grade - 1-6 students. It was found that needs for additional knowledge, improved basic knowledge, and improved learning achievement were the main motivation for students to attend. And also the intensive courses used teaching techniques which were easy to understand and the content corresponded to the learners' needs.

Other findings:

There were 200 pieces of research related to learners. Fourteen of them related to characteristics of learners,73 related to the effects of the social environment on students, and 113 investigated characteristics of present learners. It was found that elementary - and secondary-school students in opportunity - expanded schools had I. Q's at the intermediate level. It was found that students during a period of educational reform needed to participate in student-centered learning through both approaches of having teachers monitor activities and teachers reduce their roles to a medium level. As for attitudes about friendship and knowledge about sex education, it was found that they knew about sex education at the intermediate level, and learners had knowledge about and attitudes towards AIDS at the intermediate level as well. More than half of students showed no sign of stress and had less risk behavior. However, 47 per cent of learners experienced drinking alcohol and 52.9 used the media as a sexual stimulant. It was also found that elementary - school students showed a high level of discipline and ethics. At the tertiary level, it was found that students who lived in dormitories showed a high level of discipline and ethics. It was also found that students who lived in dormitories showed no statistically - significant differences between spending their free time in academic work, or religious, or arts - and - culture activities but differences between those on the one hand and sport and recreation on the other.

Research related to educational reform. This issue was established in order to look directly at the movement for educational reform. There were 80 studies related to educational reform covering topics related to readiness for educational reform. In elementary schools, it was found that schools were ready in every aspect. In an analysis of factors related to education policy, a case of basic education, it was found

that at the secondary level, the recruitment of students did not meet the target numbers but the learning achievement was at an acceptable level. In a study of academic administration in pilot schools for basic education, 2002, it was found that stakeholders who participated in curriculum construction had no knowledge and understanding concerning such curriculum. As for learning process, according to the 1999 Educational Act, it was found that teachers had content knowledge and pedagogical knowledge and ability to work with communities at moderate levels. However, teaching with a student-centered approach was practiced at greater levels. The project for special education in elementary schools showed that it was conducted in a well-prepared situation. Some problems were lack of funding, personnel had high a workload and had no knowledge about children with special needs. In a study of the characteristics and environments of gifted children in elementary schools, it was found that the development activities and teaching methods and models were conducted in order to enhance the intellectual capability of these children.

Trends of future research:

Certain research related directly to the development of learning and teaching may be proposed as follows: Under the chapter of educational goals and policies, research that needs to be conducted includes policy research related to the situation of educational-policy implementation; the policy related to the future of Thai education and pedagogical approaches involving youth characteristics; research and development related to administrative projects under the decentralization approach; and evaluation research related to the outcomes of educational reform.

Under the chapter of educational rights and duties, research that needs to be conducted includes perceptions of parents in rural areas of the rights of learners; follow-up studies about the numbers of students who attend school based on the location of their homes; situation and movement of freedom to learn of people; research and development on equity in educational- innovation implementation; and a model for personnel development for those who work in special education.

Under the chapter of educational guidelines, research that needs to be conducted includes learning processes which aim at life- skills development; learning styles of Thai students ; strategies for integrating morality and ethics into the way of life in the Thai context; integrating science and mathematics into the way of life; participatory action research among families, communities and organizations in local education management ; learning models for the development of critical mind, vision and adjusting skills, an attitude of understanding one's own culture and accepting other cultures as well ; development of computer programs for learning evaluation in a Thai context ; and community-based curricula for the under- privileged.

Under the chapter of educational resources and investment, research that needs to be conducted includes information systems related to manpower planning; vouchers for educational welfare; cost- effectiveness of educational resources and investment; the effect of floating educational fees; feasibility studies about sharing systems and resources for in -service teacher-training based on different contexts; and a long-term study about educational resources and investment.

Under the chapter of educational technology, research that needs to be conducted includes research related to infrastructure for information technology; information technology in schools; ethics in media use and production; the impact of media and innovation on teachers and educators; and the development of learning and teaching materials for the disabled and under -privileged groups.

In conclusion

Trends of future research may be organized on two main levels:1) At the national level, research should be mainly integrated or collaborative: 2) At advanced degree levels, masters's-degree theses and doctoral-degree dissertations should be conducted under the themes following the chapters in the 1999 National Education Act. The themes that should be promoted for research include issues under each chapter in the National Education Act.

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