

Full Length Research Paper

Collaborative network management for enhancing quality education of primary schools

Wisithsak Chaikoed^{1*}, Chaiyuth Sirisuthi¹ and Kochaporn Numnaphol²

¹Faculty of Education, Mahasarakham University, Mahasarakham, Thailand.

²Faculty of Education, Roi Et Rajabhat University, Roi Et, Thailand.

Accepted 9 June, 2016; Accepted 7 February, 2017

This research aims to study the network and collaborative factors that enhance quality education of primary schools. Different methods were used in this research work: (1) Related approaches, theories, and research literatures and (2) Scholars were interviewed on 871 issues in the form of questionnaire, and the collaborative network factors were verified by 10 experts. Confirmative factor analysis was used for the data analysis. Findings revealed that there were 8 major network factors: (1) reciprocal interaction; (2) common vision; (3) participation; (4) trustworthiness; (5) common awareness development; (6) commitment development; (7) common activity participation, and (8) common decision making. These will be used by educators for planning and collaborative network management in schools.

Key words: Primary school, collaborative network, factors analysis.

INTRODUCTION

Quality education can be achieved in schools by giving students equal opportunity to learn, and ensuring every aspect or sector of a society participates in educational management (Office of Education Commission, 2009). Every sector in the society should strive for quality education collectively, because knowledge, which is dynamic, will lead to complex condition that is related and connected in various dimensions especially socially and economically (Kirirat, 2009). Continuous quality education is a process that could be implemented by schools through interesting approaches and extensive acceptance; for instance, development process involving the use of information intelligently, knowledge management,

development of learning network, and utilization of evaluative findings. These approaches are used in work to develop continuous quality education in school, and not to increase one's work load. They can promote and support schools' system or developmental technique for continuity and sustainability (Office of Basic Education Commission, 2010).

One of the approaches, group work, which causes group success through collaboration, is an important factor for school success (Luthans, 2002). According to research studies, collaboration does not only lead to successful work, but also leads to successful working group such as educational reform, learning reform, and

*Corresponding author. E-mail: coketendos@gmail.com.

teachers' development (O'shea and O'shea, 1997; Southworth, 2000). Consequently, it is necessary to develop collaboration in a person, group, and an organization. Mathews (1996) suggested that this approach promotes the strength of community for development, provides good infrastructure, creates opportunity for meeting place to share and learn together; it promotes cohesion among different divisions, and participation potentiality of community. In addition, Anthony (1978) concluded that the utilization of participatory management would lead to the readiness for potential change, trustworthiness for administrative division in higher level. When employees participate in decision making with administrative division, staff management becomes easier. Since participation management causes employees to accept potential change, administrative decision making would be better. When many persons collaborate or agree on an issue, it becomes easier and they are more careful. A good communication is from bottom- up. Network practice used in problem solving is another alternative which is very important (Kreu-tep, 2014).

The development of collaborative network should be based on the following: love, participation behavior, shared learning, soul and spirit, natural leadership quality, participatory work, assigned work, and shared knowledge. Collaborative role should be extended from educational collaboration to collaboration in developing the strength of other aspects especially in Basic Education Institution. It should organize a person, group, work unit or organization interested in participating or working together under decentralization rationale. This also applies to school administrators, educational leaders so that schools can suitably provide educational management, smooth administration and management (Dul-ya-ka-sem and Ngam-wittaya-pong, 1997). Furthermore, the major factor of collaborative network should be considered including members' participation, shared learning, shared benefit, and common interest (Charoenwongsak, 2002; Metkarunchit, 2004; Suwan-acha-riya, 2006; Greenberg and Baron, 2008). Kangpeng (2010; 2014) indicated the efficiency of collaborative work which makes organizations efficient in solving problem. Walker et al. (2011) stated that administrators should take this issue seriously. Besides, the implementation of multi- alliance work is not only the responsibility of the public sector or private sector only. Work implementation is different from the past. It starts with network establishment, investigation, follow- up, and solving of problems. Network structure, implementation, and problem solving change; they are not a stable pattern. Learning network involves participating in problem solving process or searching for developmental guidelines by using collaborative working rationale and mechanism in searching for solution that can lead to useful knowledge for quality education development congruently with the need of primary schools.

Objective

This work aims to study the factor of collaborative network management for enhancing the quality education of primary schools.

METHODOLOGY

The procedural study was conducted using the following steps: 1) theoretical approaches and related research literatures were studied from documents, textbooks, articles, and research studies both inside and outside of the country, and 2) an in-depth interview of 10 experts about network factors as well as collaborative factors and sub-factors. The instrument used for data collection included: (1) confirmative factor of collaborative network by experts, and (2) confirmative factor analysis. Data were analyzed by classifying the interview data into different issues and groups.

FINDINGS

The research findings are as follows:

The collaborative network management consists of 8 factors as follows:

1. Major factor 1: it includes reciprocal interaction with network members who participated in different activities together; they communicated through writing, talking, sharing one's opinion, and conferences. It has 4 sub-factors as follows:

1.1 Sub-factor 1: Effective communication consisting of 5 indicators: (1) accurate, clear, and straightforward communication, (2) competency in communicating information and news to be understood and practiced by other persons, (3) establishment of good communication culture in network, (4) ability to communicate directly, speak and express oneself with politeness, and good verbal behavior, and (5) flexibility and competency in using various communication levels.

1.2 Sub-factor 2: Care and support consist of 5 indicators as follows: (1) ability to care for other network members, (2) showing love and mercy to other network members, (3) being creative, paying attention, and caring for network members, (4) competency in perceiving other members' feeling, and viewpoint, and (5) giving attention to members, caring for them, and developing them morally.

1.3 Sub-factor 3: Shared learning consisting of 7 indicators as follows: (1) continuous shared learning in the network, (2) continuous development of skill, behavior, attitude, and strength development in the network, (3) continuous sharing and experience, (4) construction of a new body of knowledge for using thinking principle, academic principle, and practice principle that moves the network forward, (5) teaching work among network members, (6) learning facilitation by

promoting positive interaction with network members, and (7) reflection of success in overall work practice in the network.

1.4 Sub-factor 4: Conference/seminar consisting of 4 indicators as follows: 1) emphasis on good relationship, 2) determination of common agreement, 3) attention in working together, and 4) clear objective and planning.

2. Major factor 2: Common vision referring to the overall view of future network goal, perception, and understanding of the same direction consists of 4 sub-factors:

2.1 Sub-factor 1: common vision consists of 10 indicators as follows: (1) repeated or frequent communication of vision as much as possible, (2) communication competency in congruence with network members' responsibility, (3) every member's participation in effecting changes to obtain the network vision, (4) individual's vision adjustment to network vision, (5) the network members' acceptance of their vision, (6) competency in explaining and persuading members to understand and accept the constructed vision, (7) continuous and regular communication, (8) appropriate recruitment of network members based on their knowledge and competency, and willingness to work to accomplish the specified vision, (9) trustworthiness in members' competency, and (10) each member being determined to achieve the network vision.

2.2 Sub-factor 2: Vision communication consists of 6 indicators as follows: (1) usage of specific or comprehensible words, (2) testing other persons' understanding by observing individual's behavior, (3) dissemination of vision for every network member to agree and be willing to participate in activities for accomplishing that vision, (4) appropriate communication of language, (5) development of acceptance and sense of belonging for every network member, and (6) responsibility and support for making the network vision come true.

2.3 Sub-factor 3: Dissemination of vision consists of 2 indicators as follows: 1) small group conference through a two way communication which involves summarizing the document size that indicates the network vision, and 2) promotion of working skill.

2.4 Sub-factor 4: Energetic development consists of 7 indicators as follows: (1) the developing working enthusiasm in members by acting as role models, (2) building trust in every member, (3) careful data collection and study for decision making without error or mistake, (4) development of good team work in members, (6) competency in developing affiliation or attachment in members, and (7) encouraging members to work as a team.

3. Major factor 3: Participation, involving acceptance of

the terms of the network to be part of it as well as participative thinking and decision making, consists of 4 sub-factors as follows:

3.1 Sub-factor 1: The need for change consists of 4 indicators as follows: (1) need for self-reliant and participation in network development, (2) competency in utilizing members' potentiality, (3) readiness for potential change, and (4) competency in communicating with understanding which leads to attachment or affiliation in the network.

3.2 Sub-factor 2: Awareness consists of 10 indicators as follows: the whole practice of network, (2) selection of appropriate technique, (3) and appropriate practice, (4) practice focusing on morality, religion, and ethics in order to maintain social life order, (5) conduct based on good tradition, (6) practice involving emotion and affiliation in the network, (7) development of learning process, and participative decision making among network members, (8) expression of thought and feeling to participate in network, unity, and collaboration among different divisions in the network, (9) good attitude towards work as well as work satisfaction, and (10) collective expression.

3.3 Sub-factor 3: The meeting and sharing places consist of 4 indicators as follows: (1) opportunity and place of meeting as well as sharing of learning, (2) information and news sharing with each other, (3) the development of commitment to network among network members, and (4) the acceptance of one another's opinion.

3.4 Sub-factor 4: Goal setting consists of 5 indicators as follows: (1) participation in decision making, (2) super ordinates' acceptance of opinion and suggestion provided by the sub-ordinates and giving them opportunity to discuss their problem, (3) network members' leader and leadership, (4) appropriate motivation for members, and (5) good relationship between the administrators and network members.

4. Major factor 4: Trustworthiness referring to a person's behavior to another person or groups expressed verbally, in action, commitment, statement or decision making to act openly consists of 4 sub-factors:

4.1 Sub-factor 1: Trustworthiness or sincerity consists of 8 indicators as follows: (1) confidence and trustworthiness in network members, (2) revelation of important information for network members, (3) competency in developing trustworthiness in network members to conform willingly, (4) trustful rationale, ability to suggest, and willingness to help, (5) empathy, and development in attachment for work in network, (6) ability to cooperate, be opened, and listen to other network members' opinion, (7) promise keeping, being bold to achieve success in work, (8) consistent maintenance of trustworthiness through word and action.

4.2 Sub-factor 2: Honesty consists of 3 indicators as

follows: sincerity, 2) honesty, and 3) trustworthiness.

4.3 Sub-factor 3: Familiarity/openness consists of 3 indicators as follows: (1) development of feeling/familiarity, (2) development of relationship in useful service, and (3) competency to develop friendship based on respect and appreciation of truth as well as joyfulness.

4.4 Sub-factor 4: Trustworthiness consists of 4 indicators as follows: (1) confidentiality for network members, (2) word keeping, (3) trustworthiness in network members as role model, and (4) highest trustworthiness.

5. Major factor 5: Development of common vision in synergy by being aware that one can work successfully in the network, and the body of knowledge obtained by work practice in the network includes 3 sub-factors as follows:

5.1 Sub-factor 1: Synergy consists of 4 indicators as follows: (1) Unity caused by the network members' collaboration, (2) competency to work with members successfully, (3) competency to develop collaborative network by people who know how to do something, and 4) confidence and competency to work by collaborating with network members.

5.2 Sub-factor 2: Common awareness consists of 4 indicators as follows: (1) common awareness of work practice in the network, (2) common awareness of network collaboration for success, (3) confidence in network collaboration for success, and 4) confidence and competency to work by collaborating with network members to achieve collective success.

5.3 Sub-factor 3: The pride factor consists of 3 indicators as follows: (1) ability to develop a body of knowledge through work practice in the network, (2) feeling that one's performance is a part of the network performance, and (3) the feeling that one's own performance leads to the network or team's success.

6. Major factor 6: Development of commitment including the need and search for new approach to work, commitment, relationship between network, unity, equality and support, dedication, and persistence to work consists of 4 sub-factors as follows:

6.1 Sub-factor 1: necessity consists of 5 indicators as follows: (1) awareness of necessity, burden, and duty, (2) attachment closely to work and network, (3) enthusiasm for self-development, (4) ability to use one's power to work creatively in a short time without spending whole power to work, and (5) creativity in searching for new way to work or learn new innovation from network members.

6.2 Sub-factor 2: Responsibility consists of 5 indicators as follows: (1) the sense of one's burden and duty to work, (2) sense of belonging in the network, (3) honesty and dedication to one's duty, (4) attempt to search for resource or opportunity for the network's benefit, and 5) pleasure to work and develop oneself for the success of the network.

6.3 Sub-factor 3: Commitment consists of 3 indicators as follows: (1) commitment, contract, and surrounding were the network commitment, (2) pleasure to work in network, and (3) ability to develop one's own work and network to be successful.

6.4 Sub-factor 4: Unity consists of 6 indicators as follows: (1) learning from one's collaborative thinking and practice by network members, (2) relationship between network members' alliance to develop unity, equality, and support, (3) actively involved in self-development, (4) persistence to work, having a feeling of being a part of the network or teamwork, (5) ability to adjust oneself to changing situation of the network, and 6) ability to collaborate with network members happily.

7. Major factor 7: Participation in activity including implementation based on specified plan, evaluation of outcome and impact consists of 2 sub-factors as follows:

7.1 Sub-factor 1: Implementation consists of 2 indicators as follows: (1) work plan implementation or work assignment according to specified plans or goals, and (2) implementation of goal accomplishment.

7.2 Sub-factor 2: participative evaluation consists of 2 indicators as follows: (1) investigation of work plan progress, and (2) evaluation of outcome or impact.

8. Major factor 8: Common decision making including classification of work practice delimitation, and decision making to solve problem from working together consists of 2 sub-factors as follows:

8.1. Sub-factor 1: Participating in determining one's role and duty consists of 4 indicators as follows: (1) participation in determining one's role and duty in the network, (2) determination of work practice delimitation in the network, (3) one's responsibility in the network, and (4) responsibility in outcome caused by work practice in the network.

8.2 Sub-factor 2: Common decision making consists of 3 indicators as follows: (1) decision making based on general agreement, (2) participation in network decision making, and (3) consensus decision making.

Each expert's interview analysis findings are shown in Table 1. In Table 1, the analysis of second-order confirmative factor of collaborative network management for enhancing quality education showed that when the congruence of model was adjusted, there was congruence with empirical data as Chi-square value was = 78.79, not significant. P value was = .27283, a specified criterion from .05 upward. The values of goodness of fit indicator (GFI) and adjusted goodness of fit (AGFI) were = .99 and .98 respectively based on a specified criterion from .90 upward. The root mean square error approximation (RMSEA) was = .010 in which the acceptance level was less than 0.08. In addition, the CN

Table 1. Collaborative network management indicators for enhancing the educational quality.

Indicator	Factor loading b (SE)	Predictive coefficient (R ²)	Factor score coefficient (FS)	Error of indicator (e)
<u>First Order Model</u>				
1. Reciprocal Interaction	0.82**(0.07)	0.67	-	-
Effective communication	0.52**(0.02)	0.68	0.29	0.09
Care/support	0.56**(0.05)	0.70	0.24	0.09
Shared learning	0.30**(0.03)	0.46	0.19	0.08
Conference/seminar	0.38**(0.03)	0.56	0.16	0.10
2. Common Vision	0.86**(0.04)	0.72	-	-
Common vision development	0.59**(0.05)	0.75	0.37	0.19
Vision communication	0.35**(0.03)	0.59	0.29	0.10
Vision dissemination	0.58**(0.03)	0.74	0.61	0.07
Energetic development	0.43**(0.01)	0.65	0.23	0.09
3. Participation	0.85**(0.04)	0.71	-	-
Need for changing	0.60**(0.01)	0.76	0.35	0.09
Awareness	0.61**(0.02)	0.79	0.34	0.13
Meeting and sharing place	0.46**(0.01)	0.62	0.34	0.06
Goal setting	0.43**(0.02)	0.50	0.20	0.09
4. Trustworthiness	0.87**(0.03)	0.76	-	-
Trustworthiness and sincerity	0.57**(0.01)	0.73	0.21	0.08
Sincerity	0.57**(0.01)	0.72	0.30	0.05
Honesty	0.42**(0.02)	0.40	0.25	0.03
Be reliable	0.55**(0.02)	0.70	0.35	0.07
5. Common awareness development	0.83**(0.03)	0.69	-	-
Collaboration	0.57**(0.01)	0.71	0.28	0.06
Common awareness	0.50**(0.01)	0.63	21	0.08
Be proud	0.57**(0.01)	0.72	0.30	0.05
6. Commitment development	0.81**(0.04)	0.66	-	-
Necessity	0.60**(0.01)	0.76	0.27	0.05
Responsibility	0.61**(0.02)	0.78	0.25	0.10
Commitment	0.46**(0.01)	0.62	0.19	0.06
Unity	0.43**(0.02)	0.50	0.16	0.05
7. Participative activity	0.81**(0.05)	0.66	-	-
Participative implementation	0.52**(0.02)	0.70	0.29	0.12
Participative evaluation	0.30**(0.03)	0.46	0.24	0.10
8. Participative decision making	0.80**(0.02)	0.64	-	-
Participation in role and duty determination	38**(0.03)	60	0.17	0.05
Participative decision making	0.56**(0.05)	70	0.18	0.06

**P < .01; Chi-square = 78.79; df = 72; p = .27283; GFI = 0.99; AGFI = 0.98; RMSEA = 0.010.

was = 1135.01; the acceptance level was more than or equal to 200, indicating that the research model was congruent with empirical data as shown in Figure 1.

DISCUSSION

The collaborative network management for enhancing the quality education of primary schools consists of 8 factors as follows: trustworthiness, common vision, participation, common awareness development, reciprocal interaction,

commitment development, common activity practice, and common decision making. It is noticeable that the factors' loadings are from high to low as follows: trustworthiness had the highest factor loading of 0.87; common vision, 0.86; common awareness development, 0.83; reciprocal interaction, 0.82; commitment development, 0.81; common practice development, 0.81; common decision making, 0.80 respectively. The research findings indicated that the experts gave importance to trust-worthiness probably because it is the the key or foundation of team work in which many

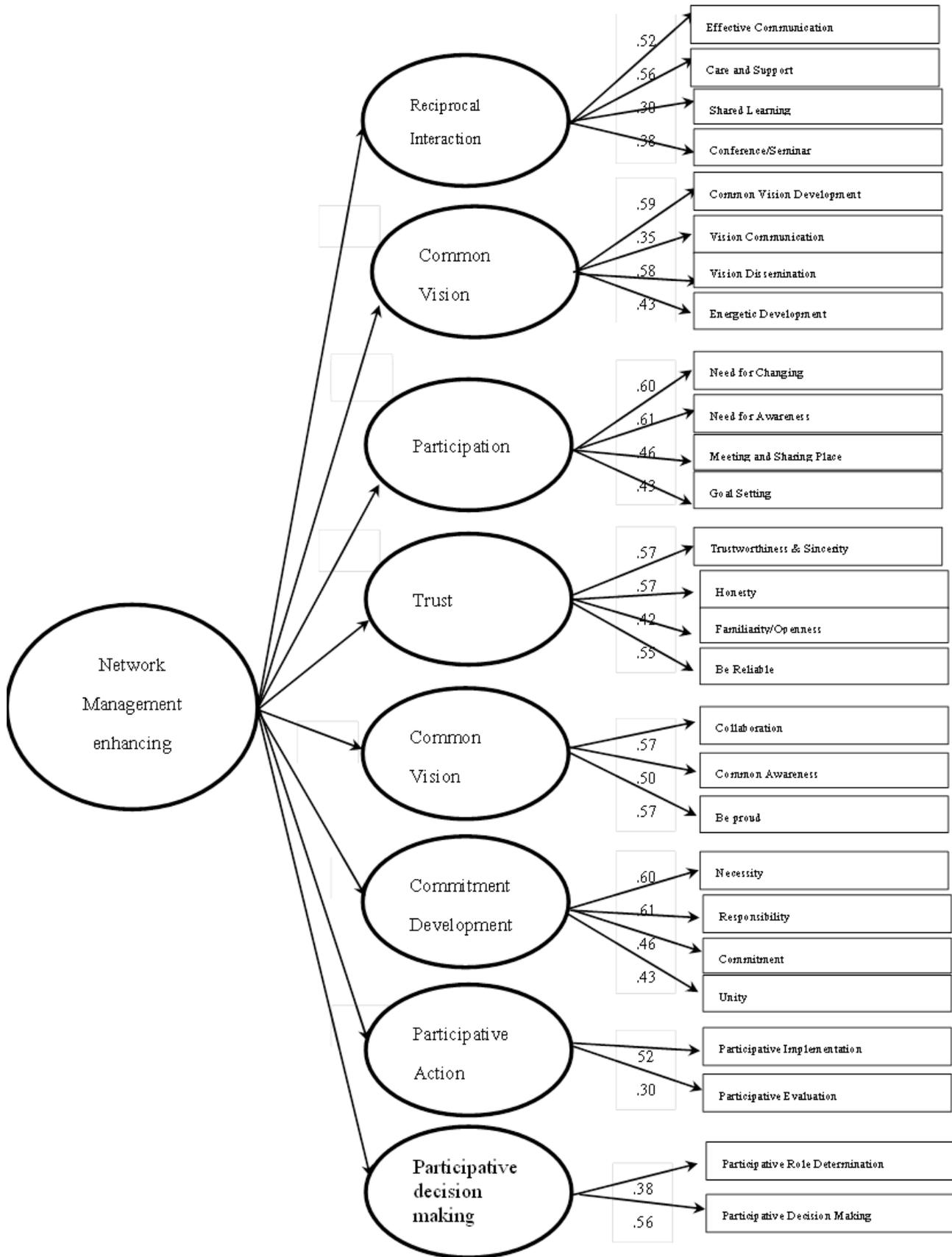


Figure 1. Network management factors.

organizations try to develop team work and encourage collaborative work for work success (Hadjikhani and Thilenius 2005; Moorman et al., 1992; Nlijhuis, 2007). The factors of collaborative network management were congruent with rationales, approaches, and research literatures as follows:

1. Reciprocal interaction consists of 4 sub-factors: Effective communication, caring and facilitating, shared learning and conference/seminar. Charoenwongsak (2002) noticed that interaction needs to be practiced by network members. The network members have to participate in activity in order to develop interaction among themselves. This is supported by Holland and Baird (1968), Wiemann and Backlund' (1980) who stated interaction among members leads to care, flexibility, interaction management, and communication competency. Spizverg (2002), on the development of interpersonal competence theory based on intellectual context, found that competency in interpersonal interaction consisted of communication and verbal competency.

2. Common vision consists of 4 sub-factors: Common vision development, vision communication, vision dissemination, and enthusiasm development. Zimmerman and Tregoe (1997) suggested 5 basic principles of effective vision communication as follows: usage of common language, and understanding of other people's behavior. Ellis and Joslin (1990) viewed that vision development was not as important as an organization's competency to disseminate vision to every member to agree and be willing to participate in various activities in order to accomplish their vision.

3. Participation consists of 4 sub-factors: The need for change, awareness, meeting and sharing places, and goal setting. Walaisatien (2005) said that the need for change and changing direction with common awareness are practiced by a group or on behalf of a group. These behaviors and situations might be understood by one's intelligence based on different approaches, theories, high level of objective, or leaders' value. In other words, some actions might be caused by stimulation. To understand stimulation, one needs to explain the real cause of action because stimulation would be in the actor's deep part of mind.

For the observer, stimulation would be the only appropriate foundation for studying one's behavior. Keith (2011), Judith (1999), and Swansberg (1996) pointed that the significance or usefulness of participation causes one to listen to other people's opinion, leads to high level of trustworthiness, work satisfaction, self-confidence, commitment to organization, and unity. Participation makes everyone or different units to accept changes, obtain new ideas which would be more useful for work development.

4. Trustworthiness consists of 4 sub-factors: Trustworthiness and sincerity, honesty, familiarity/

openness, and reliability. Decharin (2004) viewed that it is our trust on other that would make them behave honestly without taking advantage of us. Keyuranon (2009) stated that every one of us needs to have a reliable friend we meet for counseling; one who would support us throughout whether we are happy or unhappy; one who would help us when we have problem. It is necessary to develop trustworthiness in oneself to make one reliable and know how to rely on others. This will make one happy and successful in life as well as work. Lvinger and Snoek (1972) simulated the ABCDE Steps as: feeling/familiarity (Acquaintance), customers being satisfied with an organization's service, based on first impression. In building up step, if customers use an item or service, their being satisfied or not would depend on an organization's development of first impression. In the acquaintance step, familiarity is made continuously. If customers are not satisfied with an item or service, they would stop using it immediately. This is supported by the findings of Hadjikhani and Thilenius (2005), Moorman (1992), and Ndubisi (2007) that trustworthiness is very important in creating and developing customers' loyalty, trustworthiness and confidence and transferring service quality into the organization.

5. Development of common awareness consists of 3 sub-factors: Collaborated energy, common awareness, and pride. Niraton (2009) stated that the necessity in developing the network is the fact that work practitioners or managers would participate in an organization, would gain or be useful in the network. These might change when the working duration is for a period of time. This was supported by research findings of A-pak-ro (2004) that awareness and network building is a very important step since it is the starting point of a group energy as well as network for managing a situation. The network members and related persons in network development have to understand this step in order to promote self-development in the network appropriately. Schwartz (1995), Cramer (1998), Haskins (1998), and Russell (2002) suggested the power of community collaboration where members would be able to develop a body of knowledge caused by work practice in that community. The awareness is having an attitude similar to one's perception of one's worth.

6. Commitment development consists of 3 sub-factors: necessity, responsibility, commitment, and unity. Tieng-burana-dharma (1998) stated that there were necessity, responsibility, duty, commitment, and contract. Haskins (1998) suggested the approach of participation that the organization would be successful when people have close attachment with each other and their organization. People in organization have to be energetic in self-development and occupational development, dedicated to work, have sense of belonging in organization or team work, be honest and persistent in work. Creativity is used in searching for new way of working or learn new innovation from co-workers. This was supported by

research findings of Quicke (2000) that people would be pleased to work and develop their work and organization; they can adjust themselves to the changing situation of their organization through collaboration or people can collaborate with each other happily.

7. Collaborative participation in activity consists of 2 sub-factors: Participative implementation and evaluation. Erawan (2011) suggested the process of school development based on step 3 of developed program: objective of using the developed program in teacher empowerment includes: (1) group of transformation leaders that collaborated in planning and (2) collaborative implementation of specified plan. Cohen and Uphoff (1980) stated that participation in decision making does not refer to decision making only, but also decision making based on action. Participation in practice consists of the support of resource as well as service and request for cooperation. Shaffer (1992) specified activity of participatory process which could be applied in context of educational management as follows: practice following the work plan, investigation of work plan progress, and 3) evaluation of outcome and impact. This is supported by the research findings of Graham and Wright (1999) that collaborative work consists of participation in planning and sharing activity, and the accomplishment of the activity.

8. Common decision making consists of 2 sub-factors: Collaborative determination in role and duty, and collaborative decision making. Chansiri (2011) gave importance to the development of working climate or creating a supportive environment; this consisted of promotion of working climate in acceptance, recognition, and rewarding, efficient team working, support for team work in determining and finding the necessary resource for accomplishing the team goal, being the coach and trainers for team members intentionally and patiently. For team building, it was the first step for different work projects, duty and responsibility of managers or team leaders who are determined to achieve their goals using informal communication as well as listening to feedback, being attentive to other people's feeling, and having close relationship with others. Cohen and Uphoff (1988) stated their participation in decision making does not mean the decision making only, but is also based on action. Besides, it relates to peoples' benefit as well as evaluation in development activity. Decision making is almost related directly to practice as well as benefit and evaluation. The benefit is caused by decision making. Sood and Pattison (2012) pointed that social communication in F2F on Facebook, Twitter, Google Plus, LinkedIn, and You Tube, can increasingly help society in online communication. There are many kinds of activities including returned interaction, information service, adjustment, and intensive data. In addition, social media is used for sending signal and information and online conversation.

According to the research findings, it can be concluded that every factor of collaborative network management had the highest value of factor loading. It is congruent with the above rationales, approaches, theories, and related research literatures.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

ACKNOWLEDGEMENT

We would like to thank the Faculty of Education, Mahasarakham University for their financial support.

REFERENCES

- Anthony WP (1978). *Participative Management*. Massachusetts: Addison-Wesley.
- Chansiri P (2011). *The Development of Administrative Competency*. Mahasarakham: Mahasarakham University.
- Charoenwongsak K (2002). *Network Management: Significant Strategy for Success of Educational Reform*. Bangkok: S. Asia Place.
- Cohen MJ, Uphoff NT (1980). *Rural Development Participation Concept and Measures For Project Designing Implementation and Evaluation*. New York: Rural.
- Cramer SF (1998). *Collaboration*. Booton, MA: Allyn & Bacon.
- Decharin P (2004). *The Pathway from Strategy to Practice by Balanced Scorecard and Key Performance Indicators*. The 12th ed. Bangkok: Chuilalongkorn Printing.
- Ellis NE, Joslin AW (1990). *Shared Governance and Responsibility: The Keystoleadership, Commitment and Vision in School Reform*. U.S.: Department of Educational Design and Management School of Education.
- Erawan P (2011). *Research and Organizational Development in School*. The 2nd ed. Mahasarakham: Mahasarakham Printing-Sarakam Paper,.
- Graham J, Wright JA (1999). *What does Interprofessional Collaboration mean to Professionals Working with Pupils Physical Disabilities*. Bri. J. Special Educ. 26(1):37-41.
- Gordon JR (1999). *Organizational Behavior: A Diagnostic Approach*. 6th ed. New Jersey: Prentice Hall International.
- Greenberg J, Baron RA (2008). *Behavior in organizations*, 9th ed. Upper Saddle River, NJ: Prentice-Hall.
- Hadjikhani A, Thilenius P (2005). *Non-Business Actors in Business Networks*, London: Elsevier.
- Haskins ME (1998). *Beyond teams: Toward an ethic of collaboration*. *Organizational Dynamics*, 26(4).
- Holland JL, Baird LL (1968). *The preconscious activity scale: The development and validation of an originality measure*. *J. Creat. Behav.* 2(3):217-226.
- Kangpeng S, Kanlong S (2010). *Servant Leadership in Organization: The Concept, Approach, and Theoretical Research*. Khon Kaen: Klangnana-wittaya.
- Kangpeng S (2014). *Servant Leadership: The Approach, Theory, and Reasearch*. Mahasarakham: Apichat Printing.
- Keyuranon P (2016). [http:// www.stou.ac.th](http://www.stou.ac.th). Searching on the 10th March.
- Kirirat P (2011). *Teaching the Teacher to conduct Research*. The Office for Cooperation in Rubber Research Project (being supported by The Thailand Research Fund), Department of Mechanical Engineering, Faculty of Engineering, Prince of Songkla University, Songkla.
- Levinger G, Snoek JD (1972). *Attraction in Relationship: A New Look At Interpersonal Attraction*. New York: General Learning Press.

- Luthans F (2002). *Organizational behavior*. 9th ed. Boston, IL: McGraw Hill.
- Mathews D (1996). *Element of a Strong Civil Society and Healthy Public Life*. Ohio: Keltering Foundation.
- Southworth, G. (2000). How primary school learn.
- Metkarunchit M (2010). *Participative Educational Management: People, Local Administrative Organization and Bureaucracy*. The 2nd ed. Bangkok: Book point.
- Moorman C, Zaltman G, Deshpand R (1992). "Relationships Between Providers and Users of Market Research: The Dynamics of Trust Within and Between Organizations. *J. Marketing Research*, 29 (August).
- Niraton N (2009). *The Development of Working Network: Some Issues to be considered*. Bangkok: Thammasat University.
- Office of Basic Education Commission (2009). *The Handbook for Teacher Official's Work Practice*. Bangkok.
- Office of Basic Education Commission (2010). *The Handbook for Teacher Official's Work Practice*. Bangkok: The Agricultural Co-operative Federation of Thailand, Limited.
- O'Shea DJ, O'Shea LJ (1997). Collaboration and School Reform: Twenty-first Century Perspective. *Journal of Learning Disabilities*, 30. Retrieved August 24, 2002 from Education Abstracts Full Text in Wilson Abstracts Full Text database on the World Wide Web: <http://www.hwwilson.com>
- A-pak-ro S (2004). *Network: Nature of Knowledge and Management*. Bangkok: The Project for promoting learning for happy community (PLH).
- Quicke J (2000). A New Professionalism for a Collaborative Culture in Contemporary Society. *Educational Management & Administration*, 28(3).
- Schwartz DL (1995). The Emergence of Abstract Dyad Representations in Dyad Problem Solving. *J. Learn. Sci.* 4(3).
- Shaffer S (1992). Collaborating for educational change: The role of parents and the community in school improvement. *Int. J. Educ. Devel.* 12(4):277-295.
- Southworth G (2000). How primary school learn. Research Paper in Education. Retrieved January 11, from Academic Search Elite database on the World Wide Web: <http://www.ebsco.com/home/>.
- Sood SC, Pattinson HM (2012). 21st Century applicability of the interaction model: Does pervasiveness of social media in B2B marketing increase business dependency on the interaction model?. *J. Customer Behav.* 11(2):117-128.
- Suwan-a-cha-ri-ya C (2006). *Social Network*. Mahasarakam: Mahasarakam University.
- Tieng-burana-dharma W (1998). *Modern Management*. Bangkok: The Society for promoting technology (Thailand-Japan).
- Walaisatien P (2005). *The Developers' Working Process and Technique*. The 3rd ed. Bangkok: The Project for promoting the learning for happy community (PLH).
- Walker K, Kutsyuruba B, Noonan B (2011). The fragility of trust in the World of school principals. *Journal of Educational Administration*.
- Wiemann JM, Backlund P (1980). Current theory and research in communicative competence. *Review of Educational Research*, 50.
- Zimmerman J Sr, Tregoe BB (1997). *The Culture of Success: Building a Sustaining Competitive Advantage by Living Your Corporate*. New York: McGraw-Hill.