LIFE CYCLES OF COLLABORATION IN HIGHER EDUCATION: CHALLENGES AND SOLUTIONS

Josephine Mutie, Marjorie Omwega, Winnie Ngila and Lazarus Ndiku Makewa*

School of Education
University of Eastern Africa, Baraton,
P.O. Box 2500, Eldoret 30100, Kenya

*Corresponding author: ndikul@gmail.com

Abstract

The purpose of this literature review was to explore the phases in the lifecycle of collaboration in higher education and give a deeper understanding of collaboration process. The collaboration life cycle gives a mental model of the process of collaboration based on the temporal sequencing of the phases that most collaborations go through. These phases may not always occur chronologically, but they can reflect on, and envision what happens within collaboration over time. The literature review followed established methods for literature review and was guided by a model that identifies systemic phases of collaboration which are not necessarily sequential. The review was restricted to articles published between 2006 and 2013. Published quantitative and qualitative primary studies, evaluation research, systematic and other types of reviews, as well as descriptive accounts without an explicit research design, were included if they addressed the phases of the life cycle which build to collaboration. The review revealed that no phase in collaboration life cycle can take place with absolute exclusion of the others; hence, to address the challenges and solutions in the phases, a general approach was used.

Keywords: Life cycle, collaboration, higher education, awareness, motivation, self- synchronization.

Introduction

Recent research studies reveal that it is difficult, almost impossible, to imagine a society or organization without collaboration (Kezer & Lester, 2009; Eddy, 2010; OECD, 2011; Beres & Turcsanyi, 2010). Higher education is not left behind; in fact, collaboration in higher education, which involves intensive cooperation and knowledge exchange between partners to ensure development in knowledge itself; it's almost a requirement in every aspect of the education (Beres & Turcsanyi, 2010). Furthermore, partnerships in education form a central part to most education initiatives and are a requirement in most education transactions (MacDuffie et al., 2009; Friend et al., 2010).

Nevertheless, achieving healthy collaboration does not come easily (Kezer & Lestrer, 2009), but requires proper understanding of how to carry out the process in an orderly manner. In agreement, Aggarwal (2013) holds that understanding collaboration as a process is key to making it more organized so that the partners involved work together to achieve a common product. Lyons and Gitlin (2008) echo by asserting that understanding the collaboration process helps participants to examine their behaviour and consequently shape the exchange that occurs between and among them.

This literature review explores collaboration process as a life cycle. The life cycle is adopted from the Association for Information and Image Management(AIIM), which is a non-profit organization that provides education, research, and the best practice (Nugent, Halper, & Kaufman, 2013; Malik, 2010; AIIM, 2010). The AIIM collaboration life-cycle gives a mental model of the process of collaboration based on the temporal sequencing of the phases that most collaborations go through (Malik, 2010). This is regardless of whether the collaborations are local or transnational (Foster, 2010; Aggarwal, 2013), horizontal or vertical (World Bank, 2010), or whether they are multidisciplinary, interdisciplinary, or transdisciplinary (Licklider, 2012). It is therefore necessary to understand the life cycles phases.

According to AIIM, collaboration is a working practice in which participants work together to a common purpose so as to achieve a common goal (AIIM, 2010). Many other researchers and authors give similar definitions (Licklider, 2010; Kitta et al, 2011; Klindt, 2012). For the purpose of this paper, collaboration is working together in partnership,

whether between individuals, departments, institutions or societies locally or internationally to achieve common goals or produce common products in higher education.

At this point, it is necessary to give brief descriptions of the types of collaborations mentioned above. As explained by Aggarwal and Foster, in local collaborations, local institutions of higher learning come together to partner and work together to achieve a common product (Foster, 2010; Aggawal, 2013). Foster (2010) gives an example of local collaboration as offering services or sets of studies in a country by various institutions in partnership. The local collaborations are further grouped as horizontal (among equals and between members within a generational group proceeding towards occupying a dominant position within an organization), and vertical (between members separated by their positions, for example, collaboration between a student and a lecturer) (Foster, 2010). Transnational collaborations involve partnering between collaborators located in different countries but working towards a common goal (Foster, 2010).

In multidisciplinary collaboration, members in the collaboration belong to different disciplines but work together either independently or sequentially on a common goal unlike in interdisciplinary collaboration in which members belonging to different disciplines work jointly to achieve a common goal (Licklider, 2012). Still on the basis of discipline, another type of collaboration is transdisciplinary, in which,

ideas to generate comprehensive answers that can be put to practical use are brought from different disciplines by collaborators (Walsh & Kahn, 2009)

Understanding the phases of the collaboration life cycles enables the collaborators to be competent in the collaboration regardless of the type of collaboration (Lyson et al., 2008) because they predict whether the benefits obtained from investing in the collaboration and the benefits they offer to the collaboration are worth the efforts put in it.

This literature review gives descriptions of each phase of the life-cycle. While giving the descriptions, some challenges are identified and solutions suggested. The review will end by giving solutions to the common problems in the collaboration process. Although the phases are considered for all collaborations, higher education can be mapped into each of the phases with an aim of understanding the dynamics and how to influence these dynamics in collaboration to improve higher education (Sanker, 2011).

The Life Cycle of Collaboration

According to AIIM (2010), collaboration consists of eight stages, which are based on ideas making up a model of a life-cycle. The life-cycle of collaboration model is represented as an eight stage recursive loop (Kitta et al, 2011; Klidnt, 2012). The phases in this loop are; awareness, motivation, self-synchronization, participation, mediation, reciprocity, reflection, and engagement.
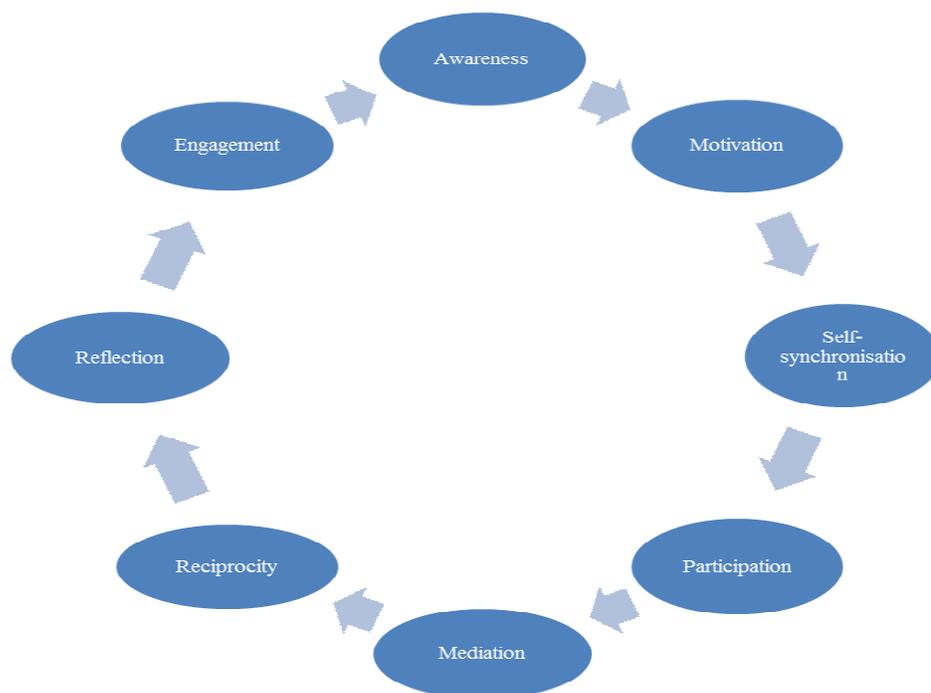

Figure 1. Life cycle of collaboration

The life cycle is represented using the basic cycle diagram above because it insists on the phases rather than the direction of the arrows.

Awareness

In the model, the phase of awareness is the realm of leadership and broad-based communication in which collaborators become part of a working entity with a shared purpose (Kitta et al., 2011; Klindt, 2012). This phase deals with policies, governance, and grass root campaigns involved in forming the culture of the collaboration by creating a space in which partners involved in a collaboration converge though with individual differences (Kitta et al., 2011). As Klindt (2012) explains, this comes about when the collaborators understand the activities of others involved in the collaboration.

Research done on collaboration, teamwork, and group work in different fields show that in any shared activities, communication among partners promote awareness, which in return promotes collaborations even in further projects (Markopoulos & Mackay, 2009; Politi & Street, 2011; Shah, 2013; Simon et al., 2013). The study by Politi and Street (2011), though done in the medical field, presents a communication model that helps in understanding the need of using communication to reach a shared understanding of collaborative decisions.

A study done by Farooq (2008) investigating the role of awareness in distributed collaboration classified awareness as social, self or workplace. As the terms suggest, the collaborators ought to understand the self need for interactions with others who have common interests without interfering with their activities (Chen et al., 2006). This includes knowing who is around, what activities are being done, and who is doing what so as to get a view of one another in the working environment. While Farooq (2008) refers to this as self awareness, Chen et al., (2006) call it peripheral awareness, which also includes activity awareness (being aware of what's being done that can support collaboration. The three forms of awareness overlap in any collaboration process and it's difficult to deal with them as independent entities.

Motivation

Kitta et al. (2011) and Klindt (2012) refer to motivation as a realm of human capital management which deals with skills, competencies, development, and succession planning incentives and other practices that influence working behaviour. On another yet similar note, AIIM (2010) recognize this part of the life cycle as one in which collaborators drive to gain consensus problem solving and development.

Motivation, an act of developing interest in doing something (Hora & Millar, 2011), is viewed as a drive to gain consensus in working together to achieve a common goal or achieve common products (Kezer & Lester, 2009). Further, Kezer and Lester (2009) reveal that highly motivated collaborators, besides being more active than those who are not well motivated, are persistently involved in establishment and maintenance of collaborations because motivation provides intrinsic drive towards collaboration.

To get motivated, potential and active collaborators must see a benefit from investing their time and energy as they are concerned over the sustainability of any collaboration to start or in progress (Eddy, 2010; Kezer & Lester, 2009). In their study on teachers' perspectives on motivation, Murphy and Manzanares discovered the need to eliminate any feeling or impression of isolation of any participant in a collaboration. They ascertain that establishing relationships and connections between the collaborators make them aware of and involved in the collaborative activities easily (Murphy & Manzanares, 2009). To improve motivation, therefore, calls for effective communication, interactions, and relationship.

Two forms of motivation; intrinsic motivation and extrinsic motivation have been identified in various studies (Eddy, 2010; Chapman et al, 2010; Vivacqua et al., 2011; Cuyjet & Weitz, 2009). Eddy (2010) comes out more clearly by explaining that extrinsic motivation is that which emerges from a sense of self-driven reasons of engaging in collaboration, which either emanates from the need to meet a desire that seeks to achieve honor, social status, idealism, or power. This means that the desire to collaborate originates from within an individual or an organization's *'self- perceived strengths'* – words used by Chapman et al (2010) to describe forces that drive intrinsic motivation. Extrinsic motivation, according to Eddy (2010), results from external sources such as coercion, mandates, excursion of power or money.

Self- synchronization

Self-synchronization- the realm of professional management- involves ability of users to discover, aggregate, filter, organize, and apply knowl-

edge for their set collaborative activities so that the set of activities align with the structure they are in, that is, whether department, institution, or organization(Kitta et al, 2011; Klindt, 2012). In reciprocity, collaborators share and expect anyone joining the collaboration to share information, knowledge, and skills to benefit the collaboration (Farooq, 2008).

Several studies agree that self-synchronization works with the slogan 'we decide as individuals when things need to happen' (Stanton et al, 2008; Salmon et al, 2009; Dimario, 2010), meaning that self-synchronization is the interaction between individuals with a common rule set describing a common outcome of the interaction and a shared awareness. Dimario (2010) holds that self-synchronization quickens decision making. But to achieve quick decision making, any collaboration, collaborations in education included, collaborators must be able to form a mutual understanding of the current and historical events in the collaboration, which translates to spending real quality time learning about the collaboration (Salmon et al., 2009). This implies that the driving forces behind achieving self-synchronization are mission understanding and awareness of the shared situation (Stanton et al., 2008; Salmon et al., 2009).

To develop self-synchronization, partners in a collaboration must bear enhanced awareness which leads to improved sustainability of action and improved effectiveness of activities that lead to achieving collaborative goals (Dimario, 2010). As argued by Salmon et al (2009), in agreement with the above observation, any participant who wants to succeed in collaboration must generate and exploit awareness in the area of collaboration. Furthermore, Salmon et al (2009) asserts that shared awareness improves self-synchronization.

Participation

Going by the word of Kitta et al (2011) and Klindt (2012), participation as a realm encompasses getting involved. In this phase, collaborators take risks in terms of reaching out and becoming more oriented to the collaboration, and is characterized by emergence of teams, communities and networks of collaboration (Lyons & Gitlin, 2008). During participation, all members are expected, and expect each other to get involved actively (AIIM, 2010) and without misaligned reasons (Sanker, 2012).

To develop participation, the belief in working with other people and working towards achieving a common goal are prerequisites (Kerner, 2011). It is vital to understand the process and components of participation so that the process can be effective.

As a phase in the collaboration cycle, participation has six components namely; team building, information and training, feedback, participatory decision making, and conflict management (Glisson et al., 2012). Team building is described by Dyer (2013) to involve enabling the collaborators to develop bonds and commitment which enable them to meet their goals. This is done by harnessing a greater pool of knowledge and skills through strengthening communication between the collaborators, which in turn promotes activities of collaboration to improve performance (Dyer, 2013)

In simpler terms, Fapohunda (2013), who studied effective team building in the work place, considers teamwork as ensuring that the best comes out of a team to enhance development that leads to working unitedly as the main aim of teamwork. Teams require commitment to build them. Dyer (2013) insists that any willing collaborator must understand the goals of collaboration in order to build effective teams. Delse et al. (2010) argues that to understand the goals, training is necessary. Training involves informing collaborating members and making them develop interactive activities so as to integrate competencies from the members to work towards a common product or goal (Delise et al., 2010). The observation above connote that trained members are well informed- a condition that enables them to collaborate willingly and devotedly.

Trained and performing members require feedback in order to develop a better understanding of what they are doing and create room for improvement (Gregory et al., 2013). For feedback to be of quality, it should be accurate, timely, focused on collaboration processes rather than outcomes, and appropriate (Gregory et al., 2013; Fapohunda, 2013). Further, Fapohunda (2013) asserts that feedback that lacks quality may lead to acquisition of wrong knowledge among the collaborators resulting to reinforcement of undesired behaviours in the collaboration and consequently terminating proper functioning of collaboration. Eventually, feedback should lead to identifying deficiencies (diagnosis of the problems, causes, lessons learnt, and coming up with solutions), identifying strong points/strengths and developing them, and developing plans for improvement of future performance (Gregory et al., 2013).

The other component of participation, par-

ticipatory decision making, provides opportunities to collaborators to support profound learning and strengthen effectiveness (Fapohunda, 2013). The process of participatory decision making, as maintained by Kerner (2011), involves the collaborators collectively analyzing problems or situations, evaluating alternative courses of action, and selecting from alternatives a solution or solutions to implement. The importance of this process is that it takes advantage of strengths and expertise of the collaborating members, since their differences bring a wider range of alternatives which are of higher quality than those coming from an individual (Kerner, 2011; Fapohunda, 2013).

The process of participatory decision making has some disadvantages including taking longer time to reach decisions than if an individual was involved, such that it is unsuitable for matters requiring quick decision making (Kerner, 2011). Another danger is that it promotes 'group think' which is not healthy for collaborations (Lunenburg, 2011). All in all there are more advantages than disadvantages in participatory decision making and it makes the collaborators develop sense of ownership and become more committed to the decisions made (Lunenburg, 2011; Kerner, 2011).

The final component of participation is conflict management. This is where collaborators employ certain behaviours to deal with real individual differences (Plessis, 2011). Conflicts result when individual participants perceive differences and disagreements between themselves and other partners related to interests, beliefs, needs, and values (Deutsch, 2009). According to Plessis (2011), conflicts are either task (related to judgement and interpretation of facts) or relationship (resulting from individual issues, political preferences values and interpersonal communication lifestyles).

Mediation

In this phase, collaborators negotiate, collaborate, and find a middle point of operation beneficial to all of them (MIIA, 2010). It is the realm involving discussion of alternative solutions, clarification, options, courses of action, and exchange of knowledge amongst the collaborators (Kitta et al., 2011; Klindt, 2012). While studying collaboration behaviour in teamwork, Tasa et al (2011) identified four steps in mediation including; ending hostilities between partners, ensuring the partners are committed to the

mediation process, helping in negotiation with each other, and formalizing any agreement into contract.

The main virtue associated with success of mediation in collaboration in research is trust (Chou et al., 2008; Mathieu et al., 2008; Han & Harms, 2010; Ansell & Gash, 2010). According to Han and Harms (2010), trust reduces conflict and promotes collaborative ability which increases as the trust increases. Even in other fields, such as in law, that take mediation as to be a process in which people resolve disputes with the help of a neutral mediator who is trained to help people discuss their differences, trust is a requirement (Chrisman & Cox, 2006). However, trust alone cannot make mediation a success because too much of it leads to reduced collaborative performance as some partners may manipulate others (Tasa et al., 2010; Han & Harms, 2010).

Apart from trust, mediation is promoted by availability of open communication, in which sense of ownership of the process is developed (Ansel & Gash, 2012). For open communication to be achieved, Ansel and Gash (2012) assert that the goals of mediation must be clear and ambitious and trust must be prevailing. Another requirement of a successful mediation process is focusing on the future and building relationships rather than opportunising blames (Acas, 2013). The process should consider the concerns of all collaborating partners so as to be successful.

Reciprocity

This is the realm of social psychology that deals with building up trust and credibility among other social norms that build up collaborations (Kitta et al., 2011: Klindt, 2012). According to Sundie et al (2013), the term reciprocity refers to an influence tactic used to provide favours to others so that they can reciprocate when later asked to give favours. This translates to giving benefits to another in return for benefits received. Concurring with the argument above, Alm (2008) calls reciprocity a 'give and take' relationship in which organizations, institutions or individuals give benefits for benefits.

Reciprocity, as a duty in collaboration, is not voluntarily assumed neither is it enforceable, meaning, any participant who offers benefits must actually receive benefits and nothing less (Alm, 2008) and every participant in collaboration should give reciprocity in gratitude. If reciprocity is exercised without willingness or with partiality, the collaboration fails to offer equity to the participants (Umoren et al., 2012).

To enhance equity among members in a collaboration, the partners must perceive each as needing something from the other. This way, the participants become responsible of each other and consequently, the collaboration becomes beneficial to each and every participant (Brydon-Miller, 2009; Umoren et al., 2012). According to Umoren et al. (2012), for reciprocity to be achieved, some ethics must be observed while carrying out the process.

It is worth noting that the ethics of reciprocity should be kept moral and should result from interactions because they are governed by the principle 'do unto others as you would have them do unto you' (Alm, 2008; Maiter et al., 2008).

Reflection

Reflection is a critical examination of a process with an aim of subsequent adjustment to new knowledge, such that, it involves merging diverse pools of knowledge and integrating the past and present experiences (Endmondson, 2009). In reflection, the collaborators are interested in identifying their level of achievement and what can be done better or what requires change (Raeves et al., 2011; Harvey et al., 2010; Edmondson, 2009). That is why AIIM (2010) consider reflection as thinking and considering outcomes, while Kitta et al., (2011) and Klindt (2012) describe this phase as a realm of initializing the experience of collaboration. In explaining the same, Fapohunda (2013) maintains that at this stage the question 'what's in this for me?' is answered.

As summarized by Edmondson (2009), reflection in collaboration involves participants examining themselves and their performance, after which they communicate about any issues to make appropriate changes. Likewise, Prilla et al (2013) presents reflection as a mechanism to learn from experience from collaborative activities already done. In the study on challenges for tools supporting reflection at workplace, Prilla et al (2013) identified two types of reflection; individual reflection wherein an individual considers whether she or he acted appropriately in certain situations or whether the individual offered smooth operation with others, and collaborative reflection where individuals consider how successful collaborative activities have been. According to Baker (2010), in collaborative reflection, individual participants in a collaboration exchange experiences and learn from each other. This implies that individual reflection in internally done while collaborative reflection is an external communicative process (Baker, 2010; Prilla et al., 2013).

In the study by Prilla (2013), collaborative reflection process is revealed to occur in three steps which are; examining the experiences, re-evaluating and understanding the experiences of the current knowledge, and delivering insights for future behaviour. This process is similar to Kolbe's reflective practice flow chart which is commonly used in the learning cycle but can apply in collaborative activities in higher education activities.

Engagement

In this phase of collaboration, the partners in collaboration participate and not just wait to see others participating in exploring and discovering what to do next (AIIM, 2010), hence, this is the realm of being actively anticipating and hunting for the next course of action (Klindt, 2012). Engagement emerges from social interactions and behaviours and is vital in creation of effective positive collaborations (Richardson & West, 2010). Apart from interaction between individuals, engagement involves interaction between time, effort and other relevant resources invested by partners to promote outcomes and development of the collaborative process (Boshoff & Stewart, 2012).

In the process of collaboration, engagement is vital in all the phases since this maintains the collaboration's level of predictability, interest and power to ensure implementation of any strategies involved in the process (Takim, 2009). Further, Richardson and West (2010) explain that the process of engagement should be guided by full understanding of the mission and goals of the collaboration which must be well communicated from the beginning

There is need to value every partner's rights in the process of engagement. Sowman (2009) defines management as the process of managing the expectations of any person, institution or group of people with interest in a collaboration. To do so the engagement process should value every collaborator's voice in making decisions that affect them as this enables them to develop trust, transparency, and accountability during the process.

As revealed in many studies, engagement is advantageous during collaboration in that it binds the participants together, it is a promise and a pledge that brings with it reciprocal rights and responsibilities and it is an interlocking that brings the collaboration

to be a relationship that is mutually beneficial (Sowman, 2009; Richardson & West, 2010; Takim, 2009; Bossoff & Stewart, 2012). Engagement faces serious challenges if the participants do not understand clearly the goals and mission of the collaboration process which come about due to lack of clear communication, or failure to involve all right from the beginning.

Solutions to Challenges Facing the Phase of the Collaboration Life Cycle

The eight phases of collaboration life cycle, though well defined, are not independent of each other, neither are they distinctive from each other. This is evident from the studies done, since promotion of one phase demands effectiveness of the others. For instance, to make engagement successful, the process must be incorporated right from the inauguration of the collaboration process (Takim, 2009; Sowman, 2009). All phases of the collaboration require full understanding of the goal and mission of the collaboration process as a whole and call for clear communication of the same (Kolbe & Boos, 2009; Eddy, 2010; Shah, 2013).

In summary, several studies and authors suggest the following solutions to challenges faced in the collaboration process;

i. Identification of a joint problem to work on- the problem should be of interest to all the prospective or active collaborators. Forced collaborations should be avoided in order to ensure effective participation through out the phases (Boshoff & Steward, 2012; Takim, 2009; Sanker, 2011).

ii. Setting clear goals- failure to understand the goals of any phase in the collaborative process leads to reduced commitment in cerryingout activities meant to enhance the phase (Fapohunda, 2013; Lunenburg, 2011; Kolbe & Boos, 2009).

iii. Collaborations formed should be committed- mechanisms should be set to regularly check on the commitment to the collaboration and feedback made available to all the collaborators (Boshoff & Stewart, 2012; Kolbe & Boos, 2009).

iv. Effective communication- communication should be clear, effective and be done after every reflection activity done that is in form of timely, accurate and appropriate feedback that keeps on ensuring

improved future performance.(Murphy & Manzanares, 2009; Gregory et al., 2013; Kolbe & Boos, 2009; Endres & Chowdhury, ; Boshoff & Stewart, 2012; Simon et al., 2011).

v. Maintaining equity between collaborating partners- this develops motivation in the collaborating partners compelling them to be active in the collaboration process (Sanker, 2011: Lester, 2009: Umoren et al., 2012).

Conclusion

This literature review went round the eight-phased loop model showing the process that most collaborations go through towards achieving their goals. The phases may not be sequential, neither are they hierarchical but are interlocking, such that, they influence each other as they all revolve around the collaboration process. Any individual, department, school, or institution of higher learning need to understand these phases before or while getting involved in collaboration since doing so improves the process and enhances achievement of collaborative goals.

References

Acas, (2013). *An approach to resolve workplace issues.* London: Author.

Aggarwal, A. (2013). Higher education in Kenya: Challenges and perspective. *International Journal of Technology and Educational Marketing (IJJM), 3*(1), 48-64.

AIIM (2010). What is collaboration? Retrieved on 06/03/2014 from www.aiim.org.

Alm, D. (2008). Contractualism, reciprocity, compensation. *Journal of Ethics and Social Philosophy 2*(3), 1-24.

Ansell, C. & Gash, A. (2012). Stewards, mediators, and catalysis: Toward a model of collaborative leadership. *The Innovation Journal: The Public Sector Innovation Journal, 17*(10), 1-21.

Baker, D. F. (2010). Enhancing group decision making: An exercise to reduce shared information bias. *Journal of Management Education, 34*(2), 249-279.

Boshoff, K. & Steward, H. (2012). Key principles for confronting the challenges of collabora

tion in educational settings. *Australian Occupational Therapy Journal, 60*(2), 144-147.

Brydon-Miller, M. (2009). Covenantal ethics and action research: Exploring a common foundation of social research. In D. Martens & P. Geinsberg (Eds.), *the handbook of social research* (pp. 243-258). Los Angeles: SAGE Publications.

Chapman, D.W., Cunnings, W. K., & Postiglione, G. A. (2010). *Crossing borders in East Asian Higher Education*. Hong Kong: comparative Education research centre, the university of Hong Kong.

Chen, S. J., HSU, C. L., & Caropreso, E. J. (2006). Cross cultural collaborative online learning: When the west meets the East. *International Journal of Technology in Teaching and Learning, 2*(1), 17-35.

Chou, L. F., Wang, A.C., Wang, T. Y., Huang, M. P., & Cheng, B. S. (2008). Shared work values, and team member effectiveness: *The mediation of trustfulness and trustworthiness. Human Relations, 61*(12), 1713-1742.

Chrisman, P. O. & Cox, G. G. (2006). Collaborative practice mediation: Are we ready to serve this emerging market? *Pepperdine Dispute Resolution Law Journal, 6*(3), 451-464.

Delise, L. A., Garman, C. A., Brooks, A. M., Rentisch, J. R., & Johnson, D. S. (2010). The effects of team building on team outcomes: A meta-analysis. *Performance Improvement Quarterly, 22* (4), 53-80.

Deutsch, M. (2009). Mediation and difficult conflicts. In M.S Herman (Ed.), *the Blackwell handbook of mediation: Bridging theory, research and practice,* (pp 355-371). Malden, MA: Blackwell Publishing.

Dimario, M. J. (2010). *System of systems collaborative formation*. Singapore: World. Scientific.

Dyer, W. G., Dyer, J. H., (2013). *Team building. Prove strategies for improving team performance*. NJ: Jossey-Bass.

Eddy, P.L. (2010). Partners and collaboration in higher education. *ASHE High Education Report, 36* (2), 23-40.

Edmondson, A.C. (2009). *Managing the risk of learning: Psychological safety in work teams*. Retrieved from http://onlinelibrary.wiley.com/

doi/10.1002/9780470696712.ch13/summary

Endres, M. L. & Chowdhury, S. (2013). The role of expected reciprocity in knowledge sharing. *International Journal of Knowledge Management, 1*(2), 1-9.

Fapohunda, T. M. (2013). Towards effective team building in the workplace. *International Journal of Education and Research, 1*(4), 1-12.

Farooq, U. (2008). *Supporting creating: Investigating the role of awareness in distributed collaboration.* US: Ann Arbor.

Foster, C.D. (2010). Higher education for collaboration: A guide for campus leaders. *Planning for Higher Education, 38* (3), 66-78.

Friend, M., Cook, L., Hurley, C. D., & Shamberger, C. (2010). Co-teaching: An illustration of the complexity of collaboration in special education. J*ournal of Educational Psychological Consultation, 20*(1), 9-27.

Glisson, C. A., Dulmus, C. N., & Sowers, K. M. (2012). *Social work practice with groups, communities, and organizations: Evidence based assessment and intervention*. Hoboken, NJ: John Wiley & Sons.

Gregory, E. M., Feitosa, J., Driskel, T., & Salas, E. (2013). Designing, delivery, and evaluating team training in organizations: Principles that work. In E. Salas, S. Tunnenbaum, D. Kohen, and G. Latham (Eds.), *Developing and enhancing teamwork in organizations: Evidence based best practices and guidelines* (pp 403-435). San Francisco, CA: Jossey Bass.

Han, G. H. & Harms, P. D. (2010). Team identification, trust, and conflict: A mediation model. *International Journal of Conflict Management, 21*(1), 20-43.

Harvey, M., Coulson, D., Mackaway, J., & Wichester-Secto, T. (2010). Aligning reflection in cooperate education curriculum. *Asian-Pacific Journal of Cooperate Education, 11*(3), 137-152.

Hora, M. T. & Millar, S. B. (2011). *A guide to building education partnerships: Navigating diverse cultural contexts to turn challenge into promise*. Sterling, VA: Stylus Publishing.

Johnson, S. (2011). Making teamwork: Decreasing conflicts in teams. *Orange, 7*(1), 23-38.

Kerner, S. (2011). *Facilitators guide to participatory decision making*. NJ: John Wiley & Sons.

Kezer, A. J. & Lester, K. J. (2009). *Organizing higher education for collaboration: A guide for campus leaders*. SAN Francisco, CA: Jossey-Bass.

Kitta, T., Grego, B., Caplinger, C., & Houberg, R. (2011). *SharePoint saver 2010 enterprise content management*. NY: John Wiley & Sons.

Klindt, T. (2012). *SharePoint 2010 wrox 10- pack digital library.* John Wiley & Sons.

Kolbe, M. & Boss, M. (2009). Facilitating group decision making: Facilitators subjective theories on group co-ordination. *Forum: Qualitative Social Research, 10*(1), 1-29.

Licklider, M. (2012). *Grant seeking in higher education: Strategies and tools for college faculty*. Missouri: John Wiley & Sons.

Lunenburg, F. C. (2011). Decision making in organizations. *Institutional Journal of Management, Business, and Administration, 15*(1), 1-9.

Lyons, K. J. & Gitlin, L. N. (2008). Understanding the process of collaboration. In K.J. Lyons and L.N. Gitlin (Eds), *Successful grant writing: Strategies for human health and hu man service professionals* (3rd ed, PP. 178-181). NY: John Wiley & Sons.

Maiter, S., Simich, R., Jacobson, N., & Wise. J. (2008). Reciprocity: An ethnic for community –based participatory action research. *Action Research, 6*(3), 305-325.

Malik, S. (2010). *Microsoft SharePoint 2010: Building solutions for SharePoint 2010*. NY: APRESS.

Markopoulos, P. & Mackay, W. (2009). *Awareness system: Advances in theory, methodology, and design*. NY, USA: Springer.

Mathieu, J., Maynard, M. T., Rapp, T., & Gilson, L. (2008). Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future. *Journal of Management, 34*(93), 410-476.

McDuffie, K. A., Manstropieiri, M. A., & Scruggs, T. E. (2009). Differential effects of peer tutoring in co-taught classes: Results for content learning and students- teacher interactions. *Exceptional Children, 75*(4), 493-510.

Murpy, E. & Manzanares, M. A. R. (2009). Teachers' perspectives on motivation in high school distance education. *Journal of Distance Education, 23*(3), 1-24.

Nugent, H. A., Halper, F., & Kaufman, M. (2013). *Big data for dummies*. Hoboken, NJ: John Wiley &Sons.

OECD. (2013). *Higher education in regional and city development: Post secondary, vocational education and training*-----------author.

Plessis, Y. (2011). Exploring teamwork paradoxes challenging 21st century cross-cultural conflict management in a multicultural organizational context. *International Journal of Cross Cultural Management, 12*(1), 49-71.

Politi, M. C. & Street, R. L. (2011). The importance of communication in collaboration decision making: Facilitating shared mind and the management of uncertainity. *Journal of Evaluation in Clinical Practice, 17*(4), 579-584.

Prilla,M., Palmer, V., & Krogstie, B. (2013). Fostering collaborative redesign of work place: challenges for tools supporting reflection at work. In O.W. Berstentein, L. Ciolfi., M. A. Grasso., and A. Papadopoulos (Eds.), *Proceedings of the 13th Euorpean Conference on Computer Supported Cooperative Work* (pp. 230-259).

Raeves, S. Lewin, S. Esprin, S. & Zwarenstein, M. (2011). *Interprofessional teamwork for health and social care*. Farnham: Ashgate.

Richardson, J., & West, M. (2010). Engaged work teams. In Albrecht, S. (Ed.), *Handbook of Employee Engagement: Perspectives, Issues, Research and Practice.* (pp. 323-340). Cheltenham: Edward Elgar Publishing.

Salmon. P. M., Stanton, N. A., Walker, G., & Jenkins, D. P. (2009). *Distributed situation awareness: Theory measurement and application to team work*. Farnham, England; Ashgate.

Sanker, D. (2012). *Collaborate: The art of we*. San Francisco, CA : Jassey Bass.

Shah, C. (2013). Effects of awareness on co-ordination in collaborative information seeking. *Journal of the American Society for Information Science and Technology, 64*(6), 1122-1143.

Simon, M. R., Bixler, C. D., Doudzan, B., & Dzwonczyk, R. (2011). Importance of appropriate collaboration with international

parties. *International Journal for Series Learning in Engineering, 7*(1), 28-39.

Sowman, M. (2009). An Evolving Partnership: Collaboration between 'experts' and a net-fishery. *Gateways: International Journal of Community Research and Engagement 2*, 119-143.

Stanton, N. A., Barber, C., & Haris, D. (2008). *Modeling command and control: Event analysis of systematic teamwork.* Burlington, USA: Ashgate.

Sundie, J. M., Cialdini, R. B., Griskevicius. V., & Kenrick, D. T. (2013). Evolutionnary social influence. In M. Sundie (ed), *evaluation and psychology* (pp 290-295). NY, USA: Psychology Press.

Takim, R. (2009). The management of stakeholders' needs and expectations in the development of construction project in Malaysia. *Modern Applied Science, 3*(5), 165-175.

Tasa, K., Sears, G. J., & Schat, A. C. H. (2010). Personality and teamwork behavior in context: The cross-level moderating role of collective efficacy. J*ournal of Organizational Behaviour, 32*(1), 65-85.

Umoren, R. A., James, J. E., & Litzelman, D. K. (2012). Evidence of reciprocity in reports on international partnerships. *Education Research International, 12* (1), 1-7.

Vivacqua, A. S., Gutwin, C., & Borges, M. R. S. (2011). *Collaboration and technology-* 17th international conference, CRIWG, October 2-7 proceedings.

Walsh, L. & Kahn, P. (2008). Collaborative working in higher education: The social academy. NY: Routledge.

World Bank. (2010). *Higher education in regional and city development.* Bio region, Chile: Author.