

ENHANCING THE INTEGRATION OF WORKPLACE LEARNING THROUGH THE USE OF SMS IN PEER LEARNING GROUPS – AN INDONESIAN CASE-STUDY

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Introduction

This paper is based on the results of a funded research project, the Australian Indonesian Governance Research Partnership (AIGRP). The research involves both Australian and Indonesian academics working together with the Indonesian Tax Office (DGT). The paper will give an overview of this research project and then will focus in particular on whether using SMS within peer learning groups can be an effective strategy for sustaining vocational learning and for mediating cultural change in the DGT workplace.

The DGT has been going through a significant modernization program that requires not only changes in organizational systems but also in the skills and attitudes of personnel. According to Crane (2002) any change in the culture of an organization ultimately resides with individual workers. They can choose whether or not to accept management's desire for organizational change and embrace it. One of the learning strategies employed by the DGT to help personnel feel more involved in the modernization process was peer learning.

The AIGRP research project explored the use of peer learning groups known as 'workplace learning groups' as a strategy for mediating the effect of organizational change on DGT personnel (Collier, Rokhman, Ayuandini & Kurniawan, 2007). Workplace learning groups were designed to promote workplace learning and to support and challenge cultural change within the DGT. They provided a 'grassroots' forum for discussing the impact modernization issues have on specific workers and workplaces.

Workplace learning groups which in previous research (Collier and McManus, 2005a, 2005b) were referred to as 'learning partnership groups', had already been successfully used as a face-to-face learning support system in vocational training programs in the Indonesian and Australian Tax Office (ATO). Learning partnership groups were introduced into ATO and DGT vocational training programs in 2005 and 2006 to see whether peer learning could be used to support learning in vocational training programs as it does in Higher Education (Sampson & Cohen, 2001; Saberton, 1985 & Sampson, Cohen, Boud, & Anderson, 1999).

Learning partnership groups did appear to have a similar impact when they were included as part of ATO and DGT vocational training programs. They helped participants make the connection between what was learnt in a training program and its relevance to their workplace practice. Learning partnership groups offered the following additional benefits to ATO and DGT personnel through:

- highlighting the learning processes that occur in the workplace
- providing an opportunity to exchange experiences and ask questions
- encouraging openness in expressing an opinion
- helping participants appreciate and positively utilise difference in the workforce
- allowing participants to solve different work problems
- developing participants understanding of how to work effectively as a team
- encouraging participants to become more autonomous learners.

(Collier and McManus, 2005a, 2005b, 2006).

The AIGRP research project built on the previous research conducted on learning partnership groups in vocational training programs in the ATO and DGT and transferred them to the workplace where they became workplace learning groups. The researchers wanted to investigate whether the benefits that had occurred in the training context could be transferred and sustained back in the workplace. They also needed to explore the effects on the groups of different modes of communication. Face-to-face meetings were easy to manage in vocational training programs but not in the workplace where participants were sometimes located not only in different offices in the same city but in different cities on different islands. Therefore on-line and SMS modes of communication were included for a selection of the DGT personnel who participated in the workplace learning group experience.

The benefits DGT personnel had derived from participating in learning partnership groups were especially relevant to the needs of modernization in the DGT and generally to the needs of the 21st century workforce. Tennant (2000, p.123) argues that the contemporary workforce can only meet the demands of the 21st century if it is 'clever, adaptable and flexible'. Workers need to be constantly learning at work and able to apply their learning efficiently. Developing effective workplace performance requires workers to extend their skills, modify attitudes and up date their capabilities. The new skills that are needed to deal with constant change include: learning to learn; problem finding/solving; creative thinking; managing personal and professional growth; speaking and listening effectively; interpersonal skills including teamwork and negotiation skills and influencing skills (Burns, 2002). These are the kind of skills that workplace learning groups promote and are why they were introduced into the DGT workplace.

The AIGRP research project monitored ten workplace learning groups set up in two regional DGT offices: five in Mataram, Lombok and five in Sorong, West Papua. These workplace learning groups were monitored over a period of three months.

Organisational Change, Modernization and the DGT

The key purpose of modernization as stated the DGT Draft Strategic Plan 2007, is to increase the revenue from taxation, to make the DGT a world-class tax administration with trustworthy management that is accountable to the public (TAMF Training and Capacity Building Plan Feb 2006-March 2007).

These objectives could only be achieved through the implementation of huge changes to the organisation. For example modernisation involved the introduction of new systems, for example a 'flatter', more devolved, management structure and more effective communication systems. DGT offices would be upgraded and new technologies introduced to all regions. These changes were driven by a need for the DGT to function more efficiently and become

transparent and ethical in its dealing internally within the organisation and externally with its dealings with taxpayers.

For modernisation to be successfully implemented throughout the DGT, the knowledge, skills and attitude of DGT personnel had to undergo a radical change. A flatter management system requires personnel take more responsibility for making decisions within their job and learning to support each other in doing this through working effectively in teams. This is a marked change from the hierarchical 'top down' structure that existed before.

Training was identified by DGT management in 2005 as being an important strategy for helping employees to meet the demands of modernization. Data from internal and external interviews conducted for a recent Training Needs Analysis (2007), highlights how training was seen as a means of communicating the changes that would be expected of staff both during and after the modernisation process; it was seen as a way to encourage attitudinal change as well as providing the technical knowledge and skills needed for modernization.

The Training Program

This research focused on one particular training program, 'Organisational Change and Service Delivery Systems', managed by Hassall and Associates International (now GHD Hassall). This one-week program was delivered in six different regional locations from Java to West Papua and was chosen because it focused specifically on the impact of cultural change on modernized offices. The program was also significant because it was the first training delivered to a group that came from different echelons or grades of the DGT. Managers were trained alongside their 'subordinate' staff. This in itself was a challenge to the existing culture of the DGT, which is highly stratified and consciously hierarchical.

Another reason this program was chosen for this research project was because it was designed using adult learning principles and included peer group learning and critical reflection. This meant that participants had already been inducted into the skills relevant to those needed for the workplace learning groups.

Methodology

Workplace learning groups were set up in two regions after DGT personnel had completed the one-week training program in 'Developing an Organizational Service Delivery Culture'. The two regions selected for the research project were Mataram (Lombok) and Sorong (West Papua). Twenty DGT personnel attended the Mataram and another twenty the Lombok training programs. All forty of them became part of the workplace learning group research sample.

Workplace learning groups were designed to allow program participants to continue their learning back in the workplace and help them implement the skills, knowledge and attitudes (see page 2) relating to modernization, that they had developed during the training program. Different mediums, face-to-face; 'on-line' and mobile phone text messaging; were used by different groups to communicate with each other. The table below shows how the groups were set up to communicate through specific mediums in Mataram and in Sorong. It also highlights how often each group was expected to report back to their research coordinator over the three months they were monitored.

Group	Communication mode	Frequency of meeting	Frequency of reporting
1	Face-to-face	weekly	weekly
2	Face-to-face and on-line (minimal support from tutor)	Bi-weekly	Bi-weekly
3	On-line (continuing support from tutor)	weekly	weekly
4	E-mail (no support from tutor)	Not specified	No reporting required
5	SMS (mobile phone)	Participants decide	Participants copy their texts to researcher.

The first three groups in each region (see table above) were given a workplace learning record to complete. All records were sent to two researchers who reminded participants of their requirement to report regularly but did not insist on the reports being completed. Group 5, the SMS mobile texting group, was not required to complete a workplace learning record but was given a small amount of credit (Rp 100,000, approx A\$14.00) on the condition they used this to communicate with their workplace learning group and when they did this, copied in the researcher in charge of collecting group reports. These responses were made into a transcript by the researcher responsible for collecting the data.

Participants were also grouped according to their location. Face-to-face-groups mostly came from the same local DGT office whilst the other groups who used on-line, e-mail and SMS modes of communication came from different local DGT offices.

The workplace learning records and SMS texts were used to analyse the progress of the four groups who reported back to the research coordinators. The researchers wanted to see whether the discipline and reporting structure helped these groups to be more successful in sustaining their learning from the training program, back in the workplace. The researchers also could monitor which of the different modes of communication appeared to work best for the workplace learning groups in these two DGT contexts.

The response of personnel within these groups to the cultural change brought about by the modernization process was monitored over a period of three months from May to August 2007 for the Mataram group and from August to October 2007 for the Sorong group. A final post workplace learning group survey was distributed to all participants at the end of the three months.

The success of the workplace learning groups especially the SMS groups

In the final post workplace learning group survey, 95% of participants agreed that workplace learning groups had helped them to implement the new skills they had gained from the 'Developing an Organisational Service Delivery Culture' training program they attended. Seventy nine per cent of participants agreed that they had also improved their service to taxpayers by implementing the principles of good governance and gave examples of changes of practice they had initiated in their workplace.

The groups who participated most fully in the workplace learning groups were the SMS groups. The Mataram SMS group sent in 14 learning records and the Sorong SMS group 12 records, which were the transcripts of their conversations, throughout the three-month

monitoring period, more than any of the other participating groups. These transcripts were often two pages long and demonstrated that the SMS groups had been texting in a sophisticated manner, using their mobile phones to explore the ideas behind modernization and to seek each other's opinions on the issues of modernization.

It is not unusual for mobile phone technology to be employed as a learning tool in Higher Education in Australia (Armatras, Holt & Rice, 2007; Duncan-Howell & Lee, 2007; Nakahara, Hisamatsu, Yaegashi & Yamauchi, 2005; Yamamoto & Akhori, 2005) and increasingly in developing countries (Ford & Batchelor, 2007; Kinshuk; 2004; Barker, Krull and Mallinson). There are examples of it being used in education in many different ways: for getting immediate feedback from learners through multiple choice questions, for literacy tasks, for note taking, for reading e-books, for searching the internet and for video conferencing. We will argue however, that the SMS communication that developed from the workplace learning groups differed from those mentioned above because it provided an open and largely unmediated forum for discussion. This SMS space allowed participants to share ideas, explore the new concepts and practices around modernization, and challenge those aspects of change that they considered would have a negative impact on themselves and the organization. The SMS communication promoted personal growth, self-directed learning and attitudinal change.

In the next section of the paper we will analyse the SMS transcripts from the Mataram and Sorong groups in more detail and consider the learning that emerges from them.

SMS group learning

As mentioned above, the transcripts from the SMS groups demonstrate that they were a very active group. Each group member took responsibility for setting a different topic for discussion each week. These ranged from 'The impact modernization will have on us in our offices' to 'Growing work motivation and responsibility at work'. The group set the learning agenda, decided what was of learning interest to them and the direction they would take the learning. The only obvious tutor intervention was in the setting up of the groups and the collection of transcripts, though the process of monitoring itself could have been an influence on the conversations that took place.

The group taking responsibility for deciding the topics for discussion indicates that the participants are being self-directed in their learning (Knowles, 1990; Rogers 2004). This 'self-directedness' is apparent in the participants' approach to learning. For example when they realise that to be prepared for modernization they need to improve their capability, one participant suggests they need to use "all the facilities available at the DGT; magazines, intranet or training".

When discussing the topic of motivation and responsibility at work, another participant argues that "everything starts from ourselves" whilst yet another talks about the need for "individual awareness" so they can recognise what they need to take responsibility for at work. The need to take responsibility for their own learning is a recurring theme in the transcripts.

Another aspect of group participants taking responsibility for learning is their ability to problem-solve. In the transcripts, participants raise problems they see connected with the changes that modernization will bring and offer answers. Often the topic chosen is posed as a problematic question. For example one participant wonders how she can prepare for the

change in work culture. Another participant suggests the need for discipline and applying the code of conduct (guidelines for ethical behaviour for staff in the Tax Office) “to all staff at our offices”. This is reinforced by another who suggests a system that could be introduced to monitor staff attendance more effectively than the present use of sign in sheets. Practical solutions are presented to the problems raised.

In a discussion of the barriers that face them in the implementation of modernization, a participant points out that “not all DGT employees are ready to face modernization in terms of their mindset as some of them still cling to the old pattern” and notes the need to improve the education and the tax skills of office personnel. The group then decides to take action and create a training module to help educate personnel. The problem-solving in this instance has a tangible outcome.

There are examples of the SMS forum being used to deal with technical problems. There is a long discussion of how to deal with up-dating of taxpayers’ database or on-line tax form submissions. Many suggestions are made and different perspectives discussed. This sharing of collective knowledge is used to help solve day-to-day difficulties in the workplace.

The problem of geographical location is raised by one of the SMS workplace learning groups. It is a problem that faces any Indonesian government organization and is not easily solved. The logistics of communicating with over 30,000 personnel in geographical locations as widespread as Sumatra to West Papua provides a huge challenge. Whilst the group acknowledged that this problem has no obvious solution, they came up with a different way of thinking about the issue. This was for them to take responsibility for doing something themselves - being proactive in going to taxpayers instead of waiting for the taxpayers to come to them. The openness of the SMS discussion promotes creative thinking in participants.

Open communication is encouraged by group participants. Frequently conversations begin with, “What is your opinion about this?”, or are interspersed with encouragers such as “I wait for your comment”. The openness created by the SMS space gives participants the freedom to discuss their superiors in a way that they would not usually do because of the strict hierarchical systems in place in the DGT. ‘Subordinates’ are not usually supposed to question their ‘superiors’. However, modernization involves the move to ‘flatter’ systems of management where all personnel are required to take responsibility for change and can question decisions that are made. SMS has enabled this questioning to occur. One participant says they must take responsibility for discipline in their offices because “there are many of our superiors who have not provided good examples for the subordinates.” They discuss the need for their superiors “to have the guts to apply” new regulations which reprimand workers who do not show commitment to the new work ethic.

One topic chosen for discussion is entitled, “The superior is not open to the subordinates and they are being egotistic and always want to win.” In this discussion some participants question this proposition but all agree that superiors should be promoted on their “track record” and be “assessed on their leadership skills”, which is not the case at present. This demonstrates again the freedom of discussion promoted by SMS communication and the quality and broad ranging nature of the debate which examines the issue from not only a personal perspective but also from an HR policy/management perspective.

Because SMS is an informal mode of communication, it encourages the sharing of personal feelings as well as professional information. In the first Mataram SMS interaction one participant acknowledges “there is a fear of our inability as staff to face modernization”. One of the functions of the group is to help “improve our self confidence about our capability” by offering support to each other at a personal and professional level. This sharing at a personal level also appears to encourage attitudinal change.

In a discussion on motivation at work one participant argues that they have to “be responsible to show a appositive image of the DGT /Tax Office, because who else can do that if it is not us? So let’s start now. Agree?” Another participant notes that “the most important thing is our willingness to change.” The SMS groups support change at a personal as well as at a professional level with one participant proposing that “we grow and develop towards a better way.”

The final survey

The final survey asked the SMS group participants what they thought they had learnt from participating in the groups over the three month period. Their responses reinforce themes that have been identified in the transcripts, such as: learning from others, allowing for open communication, attitudinal change, problem-solving and team work.

The importance of open communication predominates. One group member acknowledged that participating in the groups helped them “learn from other’s opinions when I can’t find any other ideas” whilst another says that “discussion widens my horizon”. The freedom and safety of the group allows another participant to note that he is “able to express my opinion” and another to “learn to accept and respect other’s opinions”. The workplace learning groups also “helped communication between members and helped us share information in relation to DGT modernization”.

Learning more about team work and how to “cooperate better with each other” is a strong theme as is the concept of synergy – that group work adds value:

I learned more and gained more knowledge. I can even measure myself in terms of how far my participation is in the WLG.

One participant even proposes that “WLG can solve any new problems that will arise.”

The discussions and sharing of different perspectives helped participants prepare themselves “mentally to face modernization” and “encouraged the changing of old work patterns”. These are also indicators of attitudinal change.

Finally, group participants say that they were able to learn a great deal through an open balanced discussion of the changes that will occur during modernization including the “pro’s and con’s of DGT modernization” and the real impact it will have tax officers and taxpayers.

Conclusions

Workplace learning groups provided a supportive learning network during a period of rapid organizational change in the DGT. SMS communication proved to be a particularly useful mode of communication in these groups. Its strengths are that it is easy to use and because it

is associated with informal communication, promotes a relaxed space for open communication among group participants. This open space allows participants to share their knowledge, feelings and opinions with each other and encouraged attitudinal change. The lack of tutor intervention encouraged participants to be self-directed learners and to raise and solve problems of relevance to them in the workplace. This in turn led to personal growth and the building of personal confidence of members in the group.

The learning from the SMS workplace learning groups mirrors the learning that resulted from the learning partnership groups used earlier in the ATO and DGT vocational training programs (Collier and McManus, 2005a, 2005b, 2006). They also echo the skills Burns (2002) identified as necessary for the twenty first century workplace.

It appears that appropriate training, supported by workplace learning groups using SMS communication, helped sustain vocational learning back in the DGT workplace and encouraged cultural change at grassroots level. The importance of finding strategies that work at the grassroots level of cultural change is highlighted by Kim (2002, p.8).

“Government official behaviour and work processes can change for a short period of time by force and threat, but efforts cannot change mindset and perceptions easily. Organisational structure and process can be changed by force, but it would be very difficult to force the promotion of team spirit and change the deeper level of culture. In addition to control and other strategies, cultural strategies are important in order to make high performance government organisations.”

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