

CHAPTER V

Conclusion

Introduction

The purpose of the study was to describe the Stages of Concern (SoC) and Levels of Use (LoU) of selected Sixth Form Geography teachers from the First and Second Divisions of Sarawak, in the implementation of the new Geography curriculum innovation as a whole; and also according to their demographic variables of gender, teaching experience and the location of the school.

Specifically, the study addresses the following questions:

- (1) What are the concerns of the Sixth Form Geography teachers in the implementation of the new Geography curriculum innovation?
- (2) What are the concerns of the Sixth Form Geography teachers according to the variables of gender, teaching experience, and the location of the school in the implementation of the new Geography curriculum innovation?
- (3) What are the levels of use of the Sixth Form Geography teachers in the implementation of the innovation?
- (4) What are the levels of use of the Sixth Form Geography teachers according to the variables of gender, teaching experience and the location of the school in the implementation of the innovation?

This chapter summarizes the major findings of the study and discusses their implications on the implementation of the Sixth Form Geography curriculum. It is divided into the following subsections: (a) Summary of Findings; (b) Implications; (c) Recommendations; and (d) Suggestions for Further Research.

Summary of Findings

The major findings in this study are discussed under the two main areas of the research, namely, teachers' SoC and LoU of the curriculum innovation in the implementation of the Sixth Form Geography curriculum.

Teachers' concerns about the Geography curriculum innovation

The CBAM hypothesizes that as individuals move from non-use of an innovation to using it at the beginning, their concerns develop from being most intense at Stages 0, 1 and 2 to most intense at Stage 3 (Hall, *et al.*, 1977). Previous studies on teachers' concerns by various researchers have found this developmental sequence of concerns to be applicable to most innovations.

Descriptive statistics of the sample teacher revealed that the teachers' concern intensity is high at Stages 0, 1, 2, 3 and 6. This profile resembles both that of a non-user (high Stages 0, 1 and 2) and a beginner user (high Stage 3). The high Stage 6 concern (mean 75.03) is certainly unexpected. It indicates that the teachers, after studying and using the innovation, are exploring the possibility of changes and alternatives to the existing innovation for greater impact.

Considering that all these teachers have already begun using the innovation since 1996, it seems unusual that their Stages 0 to 2 concerns are still intense at this point of the implementation process. Since they are already using the innovation, the only conclusion that can be inferred is that these teachers still have 'self' concerns (Stages 0 to 2) which have not been totally resolved. This

scenario is detrimental since unresolved 'self' concerns can be an obstacle to implementation of the curriculum innovation (Hall & Rutherford, 1976).

As for the demographic variable of teaching experience, the two most intense stages of concerns for those teachers with less than 10 years teaching experience are at Stages 1 (73.70) and 2 (75.00). This profile indicates that these teachers are most concerned with getting more information about the innovation and are still uncertain about the demands of the innovation. As for those teachers with teaching experience of 10 years and above, it is very surprising to see that even though these teachers have resolved their Stage 0 concern, their concerns for Stages 1 and 2 are still higher than that of the teachers with less than 10 years teaching experience. Their "self" concerns seem to become more intense the longer they are using the innovation. Their high Stage 6 concern might be due to the result of these unresolved "self" concerns. Their uneasiness with the curriculum innovation might have prompted them to explore other ideas to achieve a greater impact in the use of the innovation.

As for the other two demographic variables of gender and the location of the school, the results seem to indicate that the location of the school does not affect teachers' concerns about the innovation although the male teachers seem to have higher intensity in all their concerns when compared to their female counterpart.

Teachers' use of the curriculum innovation

CBAM's developmental conceptualization of the change process hypothesizes that as an individual's concerns progress, so does his skill in using the innovation. Teachers' skill in using the innovation was assessed through the LoUIP.

The investigation on teachers' levels of use revealed that the highest frequency (43.33%) of teachers were at LoU V (Integration), followed by LoU VI (Renewal; 40.00%) and LoU IVb (Refinement; 16.67%). This means that these teachers have progressed to higher LoU. The high LoU V indicates that these teachers are at a state where most effort is focussed on integrating new ideas into the use of the innovation by collaborating with one or more teachers for the purpose of achieving greater impact. This is typically done through regular meetings where resources and information are shared in an effort to increase learning.

As discussed in Chapter IV, this need to collaborate with other teachers arises because of the lack of text books and reference books in the school libraries and on the market. The teachers felt a strong need to share resources especially for up-to-date data and information. This is especially true for those teachers with less than 10 years teaching experience as half of them (50.00%) were assessed at this level. More than half (64.00%) of those teachers serving in the rural schools were also assessed at LoU V.

Frequent collaboration among the teachers also enabled them to exchange ideas or alternatives to improve or supplement the innovation. This is especially

true of those teachers with teaching experience of 10 years and above as more than half (60.00%) of them were assessed at LoU VI as compared to those teachers with less than 10 years teaching experience (30.00%). Thus, it is reasonable to infer that while all the teachers have progressed to higher LoU, the bulk of the more experienced teachers were able to progress to the final stage, that is, LoU VI.

The investigation also revealed that 16.67% of the teachers were assessed at LoU IVb (Refinement). At this stage, the teachers are making changes in the use of the innovation based on its cognitive and affective effects on their students.

The results of the LoU data also indicate that teachers' LoU are not affected by demographic variables of gender and location of school. The findings are consistent with earlier findings by LoU researchers and further supports the CBAM's contention that teachers' LoU is affected mainly by successful experience, support conditions and timely interventions rather standard demographic variables such as gender or teaching experience. These findings also reinforce the concept of developmentalism in the change process which holds that individuals "grow" in their use of an innovation.

Implications

From the CBAM perspective, an innovation cannot be said to be “institutionalized” until teachers are at a Routine Level of Use (LoU IVa) or above and have their Informational (Stage 1), Personal (Stage 2) and Management (Stage 3) concerns relatively low in intensity. From the data reported in this study, it has been found that Integration Level of Use (LoU V) predominates even though the sample’s “self” concerns (Stages 1 and 2) have not been resolved.

Thus, in this study, teachers’ unresolved “self” concerns have not hindered them from “growing” in the use of the innovation. These findings suggest that the teachers perceived some shortcomings in the existing Geography curriculum innovation. Such shortcomings led to the need to collaborate and cooperate with other teachers to share experiences and resources. Such collaboration, in turn, gave rise to alternative ideas to try to improve and supplement the existing innovation. This helps to explain their high level of use in the innovation.

Recommendations

This study reemphasizes the importance of monitoring the concerns and needs of individual teachers when change is first introduced and as change takes place over a period of time. Broad-based change must begin with the individual at the place where the individual is. The importance of this change both to themselves and their students must be communicated in several ways and repeated in several manners in order to be heard so that through this realization, each individual teacher will strive their best to “grow” in the usage of the innovation.

Based on the findings of the study and their implications, three types of recommendations are suggested for the improvement of the implementation of the innovation. The first deals with intervention activities to facilitate teachers' progress in the implementation process. The second type makes suggestions on improving the organizational arrangements to facilitate the change effort while the third discusses the use of CBAM as a model for curriculum renewal in Malaysia. The first two types of recommendations are short-term in nature while the third type is useful for long-term planning of educational change in the future.

Intervention activities

Studies that use the dimensions of the CBAM have shown that teachers' SoC progresses developmentally as a result of staff development that targets at the concerns of innovation users (Leary, 1983; Paisley, 1987; Pedron, 1987). It was found that interventions geared towards management concerns are most effective in reducing concerns (Pedron, 1987).

Intervention activities that would be most appropriate for the teachers in this study should be geared towards resolving their Stages 1, 2 and 3 concerns. Since the teachers in this study are already users of the innovation, it is suggested that more activities targeted at management concern should be provided. Such intervention activities could be organized in the form of short regular in-service courses.

Organizational arrangements

Successful implementation of a curricular innovation requires the organizational arrangements to support it. The CBAM's collaborative adoption system, as discussed in Chapter II, can perform the required linkage and collaborative functions between the users and the resource system to ensure its smooth implementation. In the context of this study, there appears to be weaknesses in the linkage between the resource system and the user system. The following suggestions may be relevant.

- (1) A temporary committee consisting of curriculum officers and key personnel should be set up at the state level to perform the necessary linkage system. These officers can function as collaborative consultants to diagnose and tackle the key personnel's concerns and needs, develop training programmes and monitoring their progress to ensure that they have the commitment and skills necessary to carry on their responsibility. In this way, these key personnel, already installed as consultants to school teachers, can be helped to resolve their own concerns before they could effectively act as instructional leaders or facilitators.
- (2) At the divisional level, these key personnel can work full time as consultants on a temporary basis. They can also provide linkage between teachers and the collaborative consultants at the state level. Their functions include the provision of support and consultation to teachers. Regular meeting sessions should be organized to discuss and share experiences, and to collaborate efforts in the use of the innovation.

These short-term organizational arrangements are of a temporary nature. They cease to operate once the teachers concerned can be independent of them.

CBAM as a model for curriculum change

The CBAM is an eclectic model of change that can accommodate Malaysia's top-down process of curriculum renewal. The Curriculum Development Center of the Ministry of Education, would be the resource center responsible for innovation development, training system, diagnosis and evaluation, plan remedial actions and selecting appropriate treatment. The center, together with the education departments at the state and district levels, should be responsible for establishing the organizational arrangements to form the linkage channels between the user system and the resource system.

The SoC and LoU of the CBAM could be used as diagnostic tools to gather information on teachers' concerns and use of the innovation through the linkage channels. This data gathering process must be an on-going, systematic and adaptive, wherein new diagnostic information is regularly collected and suitable interventions planned accordingly to match the present needs of the teachers and not the perceived needs of the key personnel. In this way, teachers current concerns can be resolved effectively, thus ensuring their progress in their various Stages of Concerns and Levels of Use of the innovation. It is also recommended by the CBAM developers that this diagnosis be carried out at least twice a year to analyse the teachers' state of concerns and needs. Thus the CBAM can serve

both as a model for staff development and as a tool to monitor teachers' progress in the implementation process.

Suggestions for further research

It is suggested that similar studies be replicated in other states beside Sarawak. The results may reveal similarities and differences in teachers' SoC and LoU between states. Such information is likely to be useful in formulating appropriate nation-wide intervention strategies towards improving the implementation of the Sixth Form Geography curriculum innovation.

Another area in need of systematic research is in understanding more about the dynamics of arousal and resolution of concerns. What are the characteristics of the interventions that lead to arousal? How are these different from interventions that aid resolution? How do arousal and resolution relate to Levels of Use, past experience, practice, intelligence and motivation? The answers to all these questions, if obtained, will definitely enriches our understanding of the dynamics of the implementation process.