

Teacher perceptions of a language curriculum: A CATWOE analysis

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Abstract

Curriculum design involves the collaboration of a number of different stakeholders who may hold divergent or even conflicting views. Soft Systems Methodology (SSM), which has its origins in the field of Management Studies, is one possible way to explore the sometimes 'hidden' views of those people concerned in the curriculum design process. This study focuses on teachers' perceptions of the Foundational Literacies course, a required course for over 400 first year students at Kanda University of International Studies. Teachers were individually asked to define the core purpose of the course and the systems modeling technique CATWOE, an integral part of the SSM process, was then used as a framework to analyse these written responses.

A brief overview of Soft Systems Methodology

Soft Systems Methodology (SSM) is an 'action-oriented process of inquiry into problematical situations in the everyday world' (Checkland & Poulter, 2006, p. 22) first used in the field of Management Studies. SSM is used to address 'messy, ill-structured, problem situations' (Checkland & Scholes, 1990, p. 22) and prioritises the understanding of the situation, taking into account the differing worldviews among those people involved, before searching for possible solutions. In order to do this a model of purposeful activity is constructed through a seven-stage process. This model is then used as a device to explore the real-life situation with an aim of finding accommodation between conflicting points of view,

which is both desirable and culturally feasible. Once change is effected it is then monitored and evaluated for its efficacy, efficiency and effectiveness. Thus, SSM is a cyclical process, as it is understood that the situation is never static, and there is always the possibility that yesterday's 'solution' will become today's perceived 'problem' (Checkland & Scholes, 1990, p. 1)

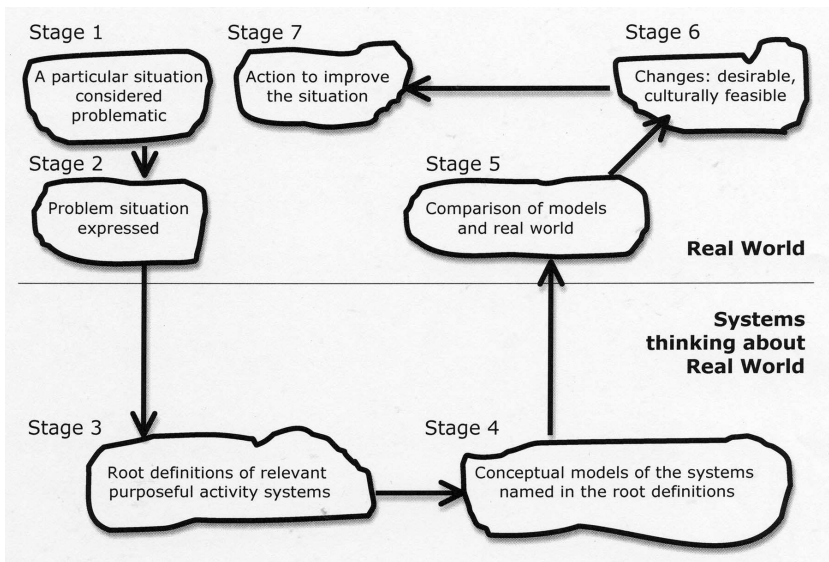


Figure 1: The conventional seven-stage model of SSM
(Checkland & Scholes, 1990, p. 27)

Checkland (2001, as cited in Tajino, James & Kijima, 2005, p.31) suggests novice practitioners of SSM follow the seven-stage process in Fig. 1. These seven stages

are divided into those which are real-world activities (Stages 1,2,5,6 and 7) and those which require systems thinking (Stages 3 and 4). A system can be simply defined as an arrangement of two or more parts interacting over time to form a whole, usually within some boundary (Booth Sweeney, 2012), meaning that we can view an organisation, school, or a sports team, as a system. Systems are unique in that they have “some properties as a single whole, so-called emergent properties. (Thus the parts of a bicycle, when assembled correctly, and only then, produce a whole which has the emergent property of being a vehicle, the concept ‘vehicle’ being meaningful only in relation to the whole.)” (Checkland & Poulter, 2006, p.8). Checkland and Poulter (2006) explain that in the real world, any problematical situation in which we utilize SSM will contain people who are “trying to act purposefully” and that we can treat this action as a system, with the linked set of activities carried out by these people making up a whole, and the emergent property of the system being purposefulness (p.9-10). It is in stages three and four of the seven-stage process that these purposeful activities are defined and modelled, before being used as a source of questions for organized discussion (Checkland & Poulter, 2006, p.50).

SSM and English Language Teaching

Although SSM has been applied to a number of management issues within private companies, non-profit organizations and health care services (Tajino et al., 2005, p.32-33) it has only been used sparingly within the area of English language teaching (ELT).

Holliday (1990) introduced SSM to the field of ELT and suggested a number of

possible ways it may be useful for a curriculum developer. The first advantage of using SSM is that it provides an organised framework to follow when developing a curriculum. And, as SSM involves the teachers and other stakeholders at every stage of the curriculum development process it can also “help achieve the necessary insight into ... [the] often hidden views” of the people concerned (p.80). Also, Holliday states that “until something can be expressed conceptually, in terms that can be communicated precisely, and has achieved the status of a discipline or a technology, it cannot be reported, researched or developed” (1990, p.83) and considers SSM as one method of achieving that goal with reference to curriculum design. Holliday concludes that there are “clear uses for SSM in ELT projects” (p.77).

Tajino, James and Kijima (2005) used SSM in the design of a 15-week one-semester EAP course at a national university in Japan. The course designers were faced with the issue of meeting the diverse needs of 29 students who not only came from a range of different faculties within the university, such as the Faculties of Agriculture, Economics, and Law, among others, but who also differed in year level, with students in their second, third or fourth year all able to take the class. Another problem was the vague title of the course, translated from Japanese into English as A Common English Curriculum for All Faculties, which left teachers with little guidance regarding the teaching approach and content selection of the course. During the first two phases of the SSM process the course designers identified a struggle between two possible objectives for the course. Was the course an opportunity to use “English to enrich the students’ general education” or was it viewed as a “skill-oriented practical English’ course?” (Tajino, et al., 2005,

p. 34) The SSM framework provided the course designers with the necessary tools to accommodate the differing views and perspectives of the students, subject teachers, and EAP teachers. The course designers concluded that SSM was useful in obtaining the support and cooperation from the various stakeholders, as well as acquiring the necessary information to design a course which satisfied the needs and wants of the students.

Tajino and Smith (2005) used SSM in conjunction with Exploratory Practice (Allwright & Hanks, 2009), a form of practitioner research, to investigate a perceived problem in an English speaking skills course at a Japanese university. The impetus for using SSM came halfway through the semester when one of the 16 items on a course evaluation questionnaire revealed that more than 80% of the students felt they did not know the other people in the class fairly well. This response brought to light the differing perspectives the students and the teacher held of life within the classroom. Although the result was not surprising to the learners it came as a shock to the teacher, who had mistakenly assumed that the many opportunities given to students to work together in this relatively small class of 19 students would automatically lead to friendships being formed. The teacher, as well as the students, participated throughout the seven stages of the SSM process, which included activities such as small-group discussions within the classroom in order to attain participants' views. At the end of the SSM process the participants were left with a clearer understanding of classroom life and new types of classroom activities were introduced for use within the class with the aim of improving classroom relationships. The researchers concluded that SSM can provide teachers with a path to "investigating the complex, dynamic social life in

the language classroom” (p.449).

CATWOE

This study focuses on the SSM modeling technique known by the mnemonic CATWOE (see Figure 2), which is used during the third stage of Checkland’s suggested seven-stage process. The CATWOE mnemonic represents the terms: Customer, Actor, Transformation process, Weltanschauung, Owner, and Environmental constraints.

C Customers: the victims or beneficiaries of T (transformation process)

A Actors: those who would do T

T Transformation process: the conversion of input to output



W Weltanschauung: the worldview which makes T meaningful in this context

O Owners: those who could stop T

E Environmental constraints: elements outside the system which it takes as given

Figure 2: CATWOE

(Checkland & Scholes, 1990, p. 35)

CATWOE plays a key role during the system modeling stage in that “it brings forth various perspectives on a problem situation as well as question our assumptions” (Bergvall-Kåreborn, Mirijamdotter, & Basden, 2004, p.56). The key elements of CATWOE are the transformation process [T] and weltanschauung [W]. The transformation process refers to the core purpose of a system. That is, something enters a system as ‘input’ and is transformed into some new form of that same thing and is now ‘output’, while weltanschauung [W] is connected to an individual’s worldview and beliefs (Bergvall-Kåreborn et al., 2004, p. 61). The transformation

process and the weltanschauung are inextricably linked in that it is an individual's worldview which makes the transformation process meaningful. As Checkland and Scholes (1990, p.35) explain, in any "relevant purposeful activity there will always be a number of different transformations by means of which it can be expressed, these deriving from different interpretations of its purpose." As an example of differing weltanschauung, a prison could be seen as a place of punishment or it may be viewed in terms of rehabilitation (Checkland and Poulter, 2010, p.192). It is likely that the individuals holding these divergent worldviews [W] would view the core purpose [T] of the prison differently. Therefore, at the system modeling stage of SSM a number of models are constructed in order to take into account the different weltanschauungen of those people concerned.

In SSM "it is critical to clearly define the purposeful activity to be modeled" (Bergvall-Kåreborn et al., 2004 p.57) and the construction of a root definition, "a condensed statement about the system, roughly comparable to a mission statement" (Bergvall-Kåreborn et al., 2004 p.57), can assist in this regard. SSM practitioners may write root definitions for systems modeling purposes either before or after using the CATWOE mnemonic, however it is essential the CATWOE device be used at some stage to ensure that none of the six elements are missing, as any missing elements will weaken the eventual root definition. Checkland and Scholes (1990) recommend the root definition be cast in the form: do **P** by **Q** in order to help achieving **R**, which answers the three questions, "What to do (**P**), How to do it (**Q**), and Why do it (**R**)?" (p.A22).

Teacher perceptions

The Foundational Literacies project, an institutional research project at Kanda University of International Studies, is currently undergoing a process of thoroughgoing curriculum renewal. In order to design a new curriculum different stakeholders holding divergent or even conflicting views need to be consulted. SSM, and the CATWOE mnemonic, provides a means to learn more about these stakeholders' perceptions.

The current study focuses on one group of stakeholders: the teachers of Foundational Literacies. All nine teachers were given an incomplete sentence in the form of a root definition (see Appendix) and asked to complete it individually before returning it to the researcher via email. Eight responses were received. A few days later these same teachers were involved in small group discussions in which they responded to further question prompts connected to each of the CATWOE elements. These discussions, held in groups of three, lasted approximately 30 minutes and were recorded digitally for analysis. However, the analysis of these discussions is ongoing and beyond the scope of this paper. This current study focuses on the teachers' written responses in order to answer the following question:

According to the CATWOE mnemonic, which aspects of curricula change are most salient to teachers?

Analysis and discussion

In this section the six elements of the CATWOE device are used as a framework

for discussing the teachers' responses.

Customers

All of the responses revealed that the teachers perceive the learners as customers of the course. Statements such as “*prepare students for future KUIS courses*” exemplify this. However, while teachers are also integral to the course none of the responses made mention of the teacher as a possible customer. As an observer, it may appear that the students are the only customer, as it is clearly the students who are entering the system, yet teachers can also be perceived as customers, in particular from a professional development viewpoint.

Actors

We can imply from the responses that both the teachers and learners are perceived as actors, however most references are implicit, with responses including language such as “*prepare learners to...*”, “*improve students'...*” or “*increase awareness of...*”. This language suggests that it is the teacher's perceived role to help the learners achieve those goals. None of the responses mentioned the teacher explicitly as an actor.

Transformation process

Six out of the eight the responses revolve around the transformation of what teachers refer to as the students' reading and writing skills (e.g. “*...provide students with basic writing and reading skills*”, “*develop students' basic reading and writing skills*”). It is interesting to observe that in a class with a name such as Foundational Literacies the majority of teachers appear to have limited

themselves to what may be called a traditional skills-based approach. However, having said that, one of the teachers sees the transformation process as concerning the improvement of the “*learners’ literacy skills (receptive and productive)*”, while another views the transformation process as preparing students “*to interpret and produce different genres of English text*”. This would suggest these two teachers see the potential for the transformation process as much wider in scope.

Weltanschauung

The responses included a variety of verbs when referring to the desired transformation. The various choices made by teachers suggest contrasting worldviews. For example, some used verbs such as “*...reinforce and build on..*” or “*...bolstering [the students’] reading and writing skills*”, suggesting a perception that the learners have already acquired the foundations of particular skills, however they can be further reinforced. In contrast, one response stated, “*...provide students with basic writing and reading skills*”. The use of the verb *provide* perhaps signals that this teacher views new learners at the university as lacking reading and writing skills, or that the Foundational Literacies course is concerned with new or different skills other than those the learners possess. Observations such as these which are focused on the learners’ past experiences as well as the place of the Foundational Literacies course in the learners’ ongoing education are strongly linked to the teachers’ worldviews.

Some teachers view the transformation process as limited to the near future and within the confines of the university. For example, half of the responses appear to

view the purpose of the desired transformation as to meet the future needs of the students at the university through statements such as “...*prepare them for more academic courses in their 2nd year...*” and “...*prepare students for reading and writing in their sophomore year...*”. These responses suggest that teachers see learners as entering the Foundational Literacies course with a particular set of academic reading and writing needs and that by the end of the year it is essential these needs are met in order for learners to progress within the university. This highlights the link made between worldview and the transformation process earlier, illustrating that it is an individual’s worldview which makes the transformation process meaningful.

Finally, when writing about how this transformation could take place, once again the choice of verbs suggests some differences in how the teachers view life in the classroom. For example, one teacher saw the transformation occurring by “*exposing learners to a variety of text types and exploring them through integrated communicative tasks*” whereas a different teacher saw the desired transformation coming about through “*teaching them reading and writing skills*”. These responses suggest that within the same course there are teachers who perceive learning as a much more collaborative process than others.

Owners

No responses refer to anyone explicitly as a possible owner of the system.

Environmental constraints

As mentioned in the weltanschauung section, half of the teachers referred to the

future needs of the students at the university. One possible reason is that these teachers are responding to perceived environmental constraints at the university in that there is a need to sufficiently prepare the students for future courses. However, this was not mentioned explicitly. Teachers did not add anything about other possible constraints, such as the course materials, the English as a Foreign Language context, or the size of the classes.

Conclusion

Within tertiary institutions around the world, ongoing research into the development of curriculum is being conducted. Teachers with divergent opinions, backgrounds and experience work together on the design, development, conduct, evaluation and renewal of these institutional curricula. Although little used within the field of language teaching Soft Systems Methodology would appear to provide curriculum developers with the necessary tools to bring about meaningful collaboration between stakeholders through the use of systems thinking to ask questions about 'reality'. In this study, the systems modeling technique CATWOE provided an efficient method of interpreting written data from teachers. Future analysis of the teachers' small-group discussions will help illuminate Foundational Literacies teachers' views further.

References

- Allwright, D., & Hanks, J. (2009) *The developing language learner: An introduction to exploratory practice*. New York: Palgrave Macmillan.
- Booth Sweeney, L. (2012). Learning to Connect the Dots: Developing Children's Systems Literacy. *Solutions*, 5, (3), 55-62.

- Bergvall-Kåreborn, B., Mirijamdotter, A., & Basden, A. (2004). Basic principles of SSM modeling: An examination of CATWOE from a soft perspective. *Systemic Practice and Action Research*, 17, (2), 55-73.
- Checkland, P. (2001). Soft systems methodology. In J. Rosenhead, & J. Mingers (Eds.), *Rational analysis for a problematic world revisited*. Chichester, West Sussex: Wiley.
- Checkland, P., & Poulter, J. (2006). *Learning for action: A short definitive account of soft systems methodology and its use for practitioners, teachers and students*. Chichester: John Wiley & Sons.
- Checkland, P., & Scholes, J. (1990). *Soft systems methodology in action*. New York: Wiley.
- Holliday, A. (1990). A role for soft systems methodology in ELT projects. *System*, 18, (1), 77-84.
- Tajino, A., James, R., & Kijima, K. (2005). Beyond needs analysis: soft systems methodology for meaningful collaboration in EAP course design. *Journal of English for Academic Purposes*. 4, 27-42.
- Tajino, A., & Smith, C. (2005). *Exploratory practice and soft systems methodology*. *Language Teaching Research*, 9, (4), 448-469.

Appendix

TASK: From your perspective as a Foundational Literacies teacher, please give a summary of what you think the course should be like by using the formula below.

The PQR formula:

do P, by Q, in order to help achieve R

...where PQR answer the questions: What? How? and Why?

EXAMPLE:

P	The Hyland Language School PET exam course is to...	...prepare learners for the Cambridge PET exam...
Q	by...	...engaging learners through the use of communicative tasks...
R	in order to...	...promote the take up of learning opportunities, thus improving learners' overall language proficiency.

YOUR ANSWER:

P	The Foundational Literacies course is to...	
Q	by...	
R	in order to...	

Comments: