Title: Teaching global issues in journalism education in an age of radical change.

Introduction

What Brysk called "global flows of people" will increasingly affect journalism values and ethics, in addition to pedagogics and curriculum in journalism education (Brysk, 2002). This paper draws on experience from three decades of teaching global and environmental issues to students at Oslo University College (Norway). It introduces Boolean Algebra to the field of journalism education evaluation, combining quantitative and qualitative approaches (C. Ragin, 1987).

Every year some 60 – 70 students of journalism at Oslo University College travel abroad to investigate an issue related to development studies or environmental studies. Most of the students do their fieldwork in the "South". This paper follows a batch of 65 students from preparing for fieldwork to the final oral exams in June 2009.

Cross cultural experiences challenge us to learn; "being astonished, enthralled, bedazzled, confused, contradicted, alienated, misunderstood, welcomed, accepted, understood" (Alred, Byram, & Fleming, 2003). Social constructivists view each learner as a unique individual with unique needs and backgrounds, and thus develops a version of the truth based on background, culture or embedded worldview (Clark, 2001; Wertsch, 1985). According to Brysk, new information combines with existing knowledge and experience to construct new histories. "Successful" information can lead to the rewriting of personal or collective identities (Brysk, 2000).

Most students adapted well to new and challenging environments while on fieldwork. Some, nonetheless, struggled more than others. In this paper, I will focus on two groups of students: Those who adapted particularly well, understood here as those who "succeeded" in presenting high-class journalistic work, and those who struggled. Various possible explanations are proposed and tested: Age, traveling in groups, type of country chosen for the fieldwork, dedication during the preparations, level of participation in the preparatory group sessions, activity on an internal Wiki and more.

The paper concludes that we need to evaluate how these and other variables combine to form a specific context for each student. Understanding these contexts can help design a learning process and corresponding curriculum suitable for students of journalism in a time of massive "global flows of people".

A brief refection on cross-cultural learning

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Internationalization can potentially extend both scope and depth of learning if framed within a social constructivist approach (Vygotsky, 1978). According to Ippolito, a social constructivist approach to internationalization "requires learners to collaboratively build new understandings based on diverse previous knowledge and experiences" (Ippolito, 2007).

Social constructivists view each learner as a unique individual with unique needs and backgrounds, and thus develops a version of the truth based on background, culture or embedded worldview (Clark, 2001; Wertsch, 1985). According to Brysk, new information combines with existing knowledge and experience to construct new histories. "Successful" information can lead to the rewriting of personal or collective identities (Brysk, 2000). Each student follows an individual path when constructing knowledge. The same information will lead to different processes in different individuals, depending on previous knowledge and experience. At the same time, from a social constructivist perspective, knowledge is socially constructed. Groups of students, for instance, interact, exchange information and points of view, and help each other in the learning process. The outcome of learning processes thus involves unique individual background, culture or embedded worldview and social interaction.

A methodology to evaluate the results of such learning processes should therefore allow for complexity at the individual level while recognizing that socially constructed learning is not a random process (C. C. Ragin, 1994). Understanding patterns of similarities and differences between students and groups of students can yield valuable insights into the learning process.

Methodology

The team of teachers wanted to understand better why some students struggle more than other in situations involving multicultural communication. Some seemed to be more able to build on "previous knowledge and experiences" to construct new understandings. We followed and assessed the development of each individual student through a set of pre-defined stages of the learning process.

The course begins with preparations at home. First, the students take part in lectures and discussions in a plenary setting. Second, they present short papers for discussion in smaller groups lead by experienced teachers. Third, the students also write several short articles for an internal Wiki on development and environmental issues. Fourth, after the fieldwork, the students present a reportage on a topic related to development or the

environment. Fifth, each student presents an essay based on their own experiences on understanding and interpreting sources of information in a context which is not familiar to them. Finally, the reportage and the essay are finally discussed in an oral examination with two experienced journalists and teachers.

Each of these six steps offers valuable possibilities for evaluating how the students progress and develop.

We interviewed all the teachers leading groups of students before the fieldwork. We also collected and analyzed all of the approximately 300 articles published on the internal Wiki. Further, the students evaluated their own experiences during the course and the fieldwork. In addition, the reportages and the essays have been evaluated and given a grade by a teacher and a journalist. Lastly, after the oral exams, we interviewed teachers and journalists on the results of the oral exams. All this information was systematized using traditional statistical methodology and Boolean algebra (C. Ragin, 1987).

Using Boolean algebra has several advantages in relation to statistical methodologies. First, the quality of work for each student was rated individually at each stage of the process. The quality was rated “very good” “neutral” or “lacking”. The result was a “footprint” of the individual learning process for each student. Boolean algebra could then be used to find patterns or structures in the material. First we looked for patterns among those who managed to produce reportages and essays of quality (deviated more than the standard deviation from the median grade for the whole class). Then we looked for patterns among those who were rated significantly below the average (again measured in relation to the standard deviation for the whole class).

The number of potential variables to explain for the variation is considerable. In the study we initially documented the following: Age, traveling in groups or individually, research before fieldwork, activity in group sessions, activity in lectures, activity on the wiki and type of country chosen for the fieldwork (“North” or “South”). The number of possible variations doubles for each time a new variable is introduced. We therefore had to limit the number of variables in the Boolean algebra according to the size of the class (C. Ragin, 1987). We finally chose to focus on four variables that can be combined in 16 different ways. These are presented below.

Results

The investigation was made in several steps. Each step produced preliminarily results, leading to defining methodology and variables for the next step.

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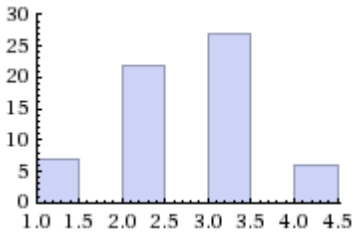
The final exams were given grades from A (best) to F. In order to calculate the average and the standard deviation the grades were converted into numbers from 1 (best) to 6. In the following I will refer to the converted scale when referring to the grades.

A total of 62 students completed the course. A few students did not complete the course for reasons either related to health or family issues. These students are not included in this sample.

7 students were given "1" ("A"), 22 got "2" ("B"), 27 got "3" ("C") and 6 got "4" ("D"). The median grade in this sample is 3 (C"). The mean is 2,5. The standard deviation is 0,825, and the variance is 0,680 and the mean deviation is 0,709.

Figure 1. (Histogram):



Based on these results we decided to investigate further the following two groups of students.

* The seven who scored better than the mean minus the standard deviation (2.5 – 0.825 = 1, 675).

* The six who scored worse than the mean plus the standard deviation (2.5 + 0.825 = 3,325).

Based on these statistics we decided to focus on four variables. First, we decided to look into possible connection between the research done before the fieldwork and the quality of the outcome. We therefore evaluated the quality of the written assignments each student handed in and published on the internal Wiki before the fieldwork. We divided the students into three groups: Those who did particularly thorough research, those who did not do much research and those in between. This variable was named "Wiki-activity". Second, we wanted to test for causal connection between the final outcome and willingness to share and cooperate with other students. All students were assigned to a group early on in the learning process. Each group included one experienced teacher. We asked the teachers to evaluate the willingness to cooperate and the activity in the group sessions of each of the students. Again we divided the students in three groups: Those who participated particularly eagerly, those who showed little or no willingness to work in groups and those in between. This variable

was named “Group-participation”. Third, we wanted to test for a possible causal connection between “type” of country chosen for the fieldwork. A majority of students chose to do fieldwork on issues related to poverty in countries in the “South”. The hypothesis was that doing fieldwork in a “Southern” context for the first time could put a student from the “North” under considerable stress and thus, possibly, make some students struggle more than others to cope. This variable we named “South”. Fourth, we offered all the students the possibility to participate in a group travelling together with a teacher during their fieldwork. Nine students chose that option. We therefore decided to test for a causal relationship between additional teacher support and the final grades given. This variable we named “Teacher-support”.

The hypothesis can thus be expressed in the following form (Boolean form):

The result is a product of a combination of the defined variables “Wiki-activity” * “Group-participation” * “South” * “Teacher-support”.

Combining results from the “truth table” and interviews

We used the Karnaugh Minimizer to perform the Boolean algebra. We then coded the results for all 62 students into the Minimizer (see attachments for details).

First, please note that a number of possible combinations of the variables are not present in this sample. This is not surprising in light of the literature on using Boolean algebra in humanities and social science. According to Ragin, social life is not random. Available combinations of variables in a sample therefore tend to appear in patterns in a seemingly systematic manner. Some combinations of variables are unlikely or even impossible (C. Ragin, 1987). Nevertheless, in this sample we clearly miss a number of possible and even likely combinations of variables. This means that the results for some combinations of variables are not conclusive and should be interpreted as guidelines for further investigation.

Second, three different combinations of variables can be understood to have a causal effect on the final result for the group of students who did particularly well (grade “A”). Three different combinations of variables can likewise be said to have causal effect on the final result for those who were given the grade “D”.

Those given the grade “A” can thus be divided into the following three subgroups according to the specific combinations of variables:

One group is characterized by little activity in group sessions combined with fieldwork in a country in the “North” and independence from the teachers during the fieldwork. The quality of research before doing fieldwork does not seem to have causal effect for this group.

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Student evaluation and interviews with students and teacher/ supervisors indicate that these students are typically independent and strong willed. The combination of doing fieldwork in an environment similar to home and strong self-confidence seem to play a role. These variables were not included in the Boolean algebra and would need further investigation. A second group is very similar to the first group, although for this group it does not seem to matter whether or not the fieldwork is done in the "North" or the "South". Nonetheless, these two groups are so similar that further research is needed in order to search for hidden causal variables that can explain these findings.

The third group stands out from the two first. This group is characterized by the following combination of variables: The students participated actively in the groups but the quality of research published on the Wiki was not particularly good. The students in this group chose to travel to the "South" and sought additional teacher support. Interviews indicate that dialogue with other students and teachers were important for this group. These students appreciated the possibility to use the group and teachers actively when reflecting on their experiences.

The students who were given the grade "D" can also be divided into three subgroups according to the specific combinations of variables.

The first group can be said to be characterized by active participation in the group sessions but also by doing fieldwork without the support of a teacher. The other variables can be said to have had no causal effect on the outcome for this group. Further interviews have indicated that this group consists of very ambitious students with demanding projects and high expectations to themselves. Most students in this group were both very disappointed and surprised by the grade they were given. Interviews with teachers and sensors indicate that the complexity of the projects seemed to have been a major obstacle when the students tried to communicate with an audience without the same type of experience. Building on Brysk, we hypnotize that this group of students struggled when new information was combined "with existing knowledge and experience to construct new histories". Dialogue with other students or a teacher during the fieldwork could possibly have improved the outcome for this group.

A second group is very similar to the first group. This group of students is characterized by strong activity in group sessions and quality research before the fieldwork. It is also characterized by fieldwork in the South. It does not seem to have played a role whether or not the students received additional support from a teacher during the fieldwork. This group reminds us that for some students traveling to the South, experiencing hunger or poverty for the first time, is a rather traumatic experience. Interviews have shown that many

students in this group are normally among the best students, but that they, in this context, needed more time to adapt and to reflect on what they experienced.

The last group is possibly easier to explain. This group is characterized by two variables only: Poor research and no additional support from a teacher during fieldwork. It does not seem to have mattered if the student did the fieldwork in the "North" or the "South".

Conclusion

The intention of this presentation has been twofold: First, introduce a novel methodology to the field of journalism education evaluation. Second, contribute to the existing knowledge on socially constructed learning in an environment of multicultural or cross-cultural communication.

The results demonstrate how one activity can be help for many students, but counterproductive for others. The specific learning context for each individual student must be taken into consideration, including previous knowledge and experiences. The results also show that many different paths lead to both successful and unsuccessful learning. The pedagogic must thus be flexible enough to allow students to construct their own understandings based on previous knowledge and experiences. The results also indicate the importance of dialogue with teachers and peers during this process of reflection and rewriting of personal or collective identities. So far the results seem to verify social constructivist theories on learning. But the results also underline the fact that some students thrive when allowed to follow an individual or even individualistic path of learning. This group of students needs freedom to explore to reach the full potential of their capabilities (capabilities understood in the sense used by Amartya Sen) (Sen, 1980).

Boolean algebra proved to be a valuable tool in reflexive action research in at least three ways. Boolean algebra helps the researcher systematize and compare complex combinations of variables with different outcomes that otherwise would have been impossible to analyze using traditional comparative methods. Boolean algebra helps the researcher reduce the complexity of combinations to the simplest possible expression of combinations that validly can be drawn from a given sample. But even more importantly Boolean algebra allow for a reflexive hermeneutical circle, where results produce new questions and hypothesis. It is therefore well suited for investigations that call for a combination of qualitative and quantitative methods.

In this study, the results finally point towards areas that need further investigation. Why do some students thrive when following an individually defined path while others do

not? Here, the results are inconclusive. A new cohort of students could shed light on the variables not fully discussed in this paper, for example the role of age and different types of previous experiences. Attention to these variables could help the teacher design a flexible learning process that take the variety among the students into consideration.

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