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Bingo for beginners: a game strategy for facilitating action learning

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ABSTRACT

This paper demonstrates the use of a game strategy in a large first year sociology class. Designed in the first instance to facilitate students’ understanding of sociological concepts, the strategy also enables teachers to elicit reactions to the process which serve as teaching points about the theory and practice of social research. In this teaching method ideas about theoretical concepts and operational definitions are tackled in a manner which students find meaningful and enjoyable (and therefore memorable). The approach would be suitable for modification to other large group teaching situations.

Introduction

As an everyday rule of thumb, universities value seriousness and scholarship over frivolity and fun; according to this principle a traditional ‘lecture’ acquires a naturally preferred status over a ‘game’. However, just as cultural values shift over time, so do attitudes toward teaching strategies. The blurring of social-cultural boundaries which accompanies such changes have been foregrounded by social scientists in notions of postmodernism and post-fordism (see Harvey 1989, Lash 1990, Jameson 1991). Shifting distinctions between work and play are a good example of the type of social transformations evident in the late twentieth century. Building upon a body of literature in organizational psychology (see Lawson, and Shen, 1998; Lardy, 1989), as managers of learning environments university educators know that people work best when they have a level of enjoyment associated with their work. When work has a fun element it is likely to be perceived more positively and addressed more productively. This is the broad context in which games as a teaching tool can be situated.

The Bingo game was devised as a way to stimulate ‘action learning’ (Jenkins, 1992) in the structured lecture environment. The lecture topic was ‘Sociological approaches to the study of the body’ in a subject entitled Society and Gender. The session began with a brief introduction to the field of sociology of the body and some frameworks that have been proposed for studying the body (e.g. Scott and Morgan, 1993; Synott, 1993; Weitz, 1998). Advantages of the Bingo game were that it enabled all students to participate equally and in this case they would be reflecting on issues about which everybody makes decisions on a daily basis. While facilitating students’ understanding of substantive information, the bingo game strategy also enables teachers to elicit reactions to the process which serve as teaching points about the theory and practice of social research.

Literature Review

Most of the games used in sociology classes encourage students to reflect on important, often abstract, theoretical themes. Glasberg et al (1998) were concerned with the ideological nature of children’s games, Groves et al (1996) were interested in making apparent issues of structural inequality and Livens (1980) explored the nature of interactions in families and marriages. Apart from being enjoyable activities, these games provoke personal reflection on more serious sociological issues. Simulation games seem successful at allowing students to
empathize with the social situations of others and to reflect, in a non-threatening setting, on the nature of their own social position (Maidment and Bronstein, 1973). Along similar lines, one of the key aims of the Bingo game was to encourage students to reflect on their own cultural choices. This means that during the progress of the session students were given an opportunity to identify their location in terms of body practices in relation to that of peers. However, the Bingo game had the further advantage of providing a context in which teachers could model some aspects of the practice of social research by integrating methodological processes with substantive theoretical material. For example, students could observe some of the links between social scientific ideas and indicators that might be used to research them.

Educational psychologists maintain that teaching methods are most effective when they engage processes that foster deep learning (Marton, and Ramsden, 1988; Marton and Säljö, 1984). A core benefit of using games in sociology relates to linking enjoyable and memorable experiences to important sociological content. Games help reveal, through simulation, the tacit rules and knowledges which structure individual experience and generate social patterns. Particularly in larger classes, individuals can begin to map their own position within the group, and reflect on the constraints and opportunities which have determined their social position. This is an especially potent idea in Groves et al’s (1996) ‘Reversal of Fortune’ game, and O’Brien and Foley’s (1999) ‘Dating Game’. Our Bingo game was also designed to demonstrate to students the structured nature of personal choices. As such, like these other games, it demonstrates neatly key ideas which sociologists have traditionally denoted through the terms structure and agency. These include such issues as the ways people’s choices and personal tastes are to some extent determined by class, income, race, age, gender and social context.

Our literature review reveals that there are several aspects of the use of games in teaching which can be extended by using a Bingo game approach. Firstly, in sociology classes, games are most often used as discrete learning strategies; they tend not to be used repeatedly throughout courses nor last more than one teaching session (1-2 hours). An advantage of the Bingo game is that it could be used with a number different topics in the same subject and not lose the capacity to motivate students’ involvement. For example, another topic in the Society and Gender course investigates the social construction of notions of work. This would lend itself to structuring questions around ideas about people’s perceptions of the relative value of paid and unpaid work. Secondly, unlike other games such as those of Groves, Warren and Witschger. (1996) and O’Brien and Foley (1999) the procedures for playing the game are not linked to the substantive material with which students are engaging. Groves et al., for example, use varying lengths of string to illustrate metaphorically, the ways social networks and resources are tied to certain places and the ways their reach is determined by the quality of one’s chains of connections in the social fabric. The materials used in the bingo game are not necessarily metaphors for, or simulations of social processes to be investigated. The game could be used to describe characteristics of personality types tested by Personality scales in psychology, or to explore variations in approaches to teaching in education.

A third issue regarding the use of games is that most tend to require a teacher-led debrief in order to encourage students to forge links with course material. The advantage of the Bingo game in this instance is that debriefing also functions as educational interaction. Finally, one of the advantages of games is that they can be used for large groups, though often this will involve the formation of a number of smaller groups. The networking game of inequality developed by Groves et al. (1996) works best with groups over fifty, while the classroom games designed to revise course content described by Grauerholz (1991) and Childers (1996)
could also be applied to larger groups. A significant advantage of our Bingo game is that it could be used for groups of 100-350 students, or smaller groups, 15-100 students, equally effectively.

There are dangers with using games however. In the first place games work best when students have confidence in the proven abilities of instructors to manage large groups. Clear instructions need to be given, and thorough preparation must form the basis for the generation of sparks of insight that come with successful teaching. Also, because of the randomness built into some games (e.g. Groves et al 1996, O'Brien and Foley 1999) instructors need to understand that the desired educational goals of the game are not always apparent to the players. Clearly, debriefing sessions are the best way to clear up misunderstandings and to smooth out the bumps generated by random effects.

The ideas discussed above are related to the pedagogical use of the game strategy; however there also need to be clearly defined aims specific to the game itself. That is, the game needs to succeed as a game (it is fun) as well as an educative tool. We will structure our discussion by first giving an overall description of the game. We will then outline the specific aims of the game, the way it was designed, the materials needed, and organisational processes and materials needed. This is followed by a discussion of the teaching points we developed as they related to the content of a first year sociology class.

**Game Description**

The Bingo Game is an holistic, experiential strategy which provokes personal reflection. It was first used in a large, first year sociology class of three hundred and twenty students to introduce ideas about sociology of the body. As readers may know, the public kind of Bingo game involves a reader calling out random numbers while participants have record sheets in front of them with a selection of fifteen numbers. The person to win a game is the first person to have all of their numbers called. They call out ‘Bingo’ and win the game. Our game could best be described as organized like a cross between the real game of ‘Bingo’ and a traditional class survey. We claim however, that the pedagogic implications of the game strategy are far more significant than a class survey could hope to accomplish. The game has a number of sub-games, each devoted to a substantive issues related to the theme of ‘Sociology of the Body’, for example, ‘adornment’, ‘body image’ and notions of ‘pain and pleasure’.

A series of statements related to the sub-game were devised by the teaching team. These statements were dichotomized so that later, students could be categorized as being one kind or another. For example, questions/statements in the ‘body image’ category were labeled as ‘healthy’, or ‘unhealthy’. One statement for the ‘healthy’ category was “Do you have a regular exercise program?” for the ‘unhealthy’ category, “Do you think you spend a lot of time worrying about your body size?” In playing the game, these statements are called out by selecting a majority from one of the dichotomous categories, say ‘healthy’. Students subsequently respond to each question by thinking ‘Yes’, that applies to me, or ‘No’ that doesn’t apply to me.

Participants award themselves one point for each ‘yes’ response, until they fill in all of the eight blank squares on their ‘Bingo card’. A bingo card looks much like an un-filled crossword puzzle with filled and blank squares. Each sub-game is completed when a participant who has filled in all blank squares calls out ‘bingo’. The person who called ‘bingo’ is given a sheet of paper labeled with a category which is related to the predominant number
of questions to which they must have replied ‘yes’, for example, “Body image – Healthy”. This is because the majority of ‘healthy’ questions would have been called first interspersed with only a few questions from the ‘unhealthy’ category.

Later in the session when all sub-games have been played, students’ responses are categorized, counted and the results displayed as a histogram and they are able to reflect on their position with respect to others. Using discussion and interactive processes teachers are able to elicit reactions concerning the adequacy of category constructions and validity of questions. These reactions/reflections can then be discussed with respect to the issues of sociological method. Differences of opinion are used inductively to examine sociological theories of the body and facilitate students’ exploration and understanding of other issues dear to the heart of sociology. In a recent class where students were asked to design questions for the category ‘clothing’ along the lines ‘functional’-‘expressive’, one female student proffered the statement ‘The label is everything’ for the ‘expressive’ category. This drew a categorical disagreement from one male member of the class who insisted that in the work context (with which he was familiar) suits with a designer label were absolutely essential to one’s acceptance. This dialogue provided an excellent example for group discussions around social stratification in terms of class, gender, economics and so on.

**Constructing and Playing the Bingo game**

Aims:

Theory in the sociology of the body maintains that the body is the site of cultural constructions of meaning and values (Synnott, 1993) which, until recently, have received little attention from sociologists (Scott and Morgan: 1993). Particularly, ideas about women’s bodies have been the sites of political struggles throughout recorded history (Weitz: 1998). The Bingo game was constructed as a way of facilitating students’ reflections about and understandings of cultural sites of inscription on the body as well as about the cultural construction of diverse body practices. It was also a process to collect information about students’ body practices whereby they could position themselves vis-à-vis student peers, thereby providing an experiential illustration of the theoretical material. To provide closure and add interest, we aimed to collate information gained from students’ records on the Bingo sheets and to present a profile of the class on each variable. Finally we sought feedback on the use of this strategy as a teaching tool.

**Design of the Game**

To adjust Bingo for our purposes we needed to devise questions to which students would be able to answer ‘yes’ or ‘no’. If ‘yes’ they would mark off a square on their record sheet, if ‘no’ they would not do anything. (Illustrations of record sheets are in the Appendix, Figure 2). We devised five sub-games, each on a particular theme derived from issues in the sociology of the body. We wanted students to reflect on the ways they use cultural artifacts and the meanings they attach to their bodies. Questions were devised in relation to; 1. Body image, 2. Food, 3. Adornment, 4. Technology, 5. Pain & Pleasure. Each of these areas constituted a separate game, that is Game 1 was ‘Body Image’ and so on.

To develop questions teachers agreed on labels for dichotomized concepts around which questions for the Body Show would be devised. These were as follows:
Body image: Healthy – Unhealthy
Food: Adventurous – Conventional
Adornments: Expressive – Functional
Technology: Hi-Tech – Luddite
Pain/Pleasure: Unconventional-Conventional

For each of these terms, a set of ideas was agreed upon. In terms of body image, ‘healthy’ meant people had a realistic image of their body size and shape. They saw themselves in a positive light and paid moderate attention to fitness and other people’s perceptions of them. For example one question asked was, “When people compliment you on your appearance do you usually believe them?” A full set of questions for the Body Image category can be found in Appendix 1) In the food category ‘adventurous’ was defined as a tendency to try many kinds of foods and ways of eating. Conventional on the other hand was the stereotypical (Australian) western tradition, including characteristics such as ‘eating take-away meals frequently’, or ‘having meat and three vegetables for the main meal of the day’. ‘Expressive’ adornment was understood as those extra decorative things people might use on their bodies which are more expressions of aesthetic taste and individual style than functional objects, for example jewelry as opposed to a watch. In the technology category a ‘luddite’ was understood as a person who avoids technology and resists technological trends. A ‘hi-tech’ person was one who knew, understood and engaged in as many technological communications and leisure activities as possible. Pain and pleasure were categorized as ‘unconventional’ or ‘conventional’. An ‘unconventional’ attitude was described as one where the person seemed to subscribe to the notion that pain and pleasure can occur together as part of the same experience or to achieve some higher purpose, for example “In sexual practices do you find pain increases your pleasure (e.g. bondage practices)?” ‘Conventional’ meant people separated pain and pleasure and made decisions as if pain or pleasure was an end in itself; “Are you prepared to endure discomfort in your pursuit of fashion (e.g. high heels, neck ties)?”

Playing the Game

There were three aspects to be considered in playing the game; instructions to students, the caller’s questioning strategy and the identification of the first person to complete a game. As an introduction, the aims of the game and its relationship to sociology of the body were explained. The mechanics of the game were then described. When a question was asked students were instructed to think ‘yes’ that applies to me, or ‘no’ that does not apply to me. If ‘yes’ they should colour, check or otherwise mark a small blank square. When all eight blank squares in a Game were checked they were to call out the name of that game, for example ‘Image’. Each matrix was dedicated to one game, for example, Game 1 – Image/Identity. Figure 1 shows the arrangement of students’ record matrices.

FIGURE 1 HERE

Figure 1: Example of the five game matrices used to record ‘yes’ responses.

The caller used the sets of questions appropriate for each game. When calling the questions, certain principles needed to be kept in mind because the outcomes of the games also were going to be used to analyze students’ responses. Firstly, questions needed to be called in a
particular way. For example, in order that someone could be labeled as fitting a particular description such as being ‘Healthy’ in their Body Image, the caller needed to call mostly questions from ‘Healthy’ set of questions (Examples in Appendix 1). Secondly, the number of filled in squares on each game was going to serve as a kind of Likert scale and the students divided as to whether they filled in 5 or more squares or less than 5 squares. So, a score of more than 5 squares on the Body Image Game meant that those people had a relatively ‘Healthy’ perception of their body image according to the arbitrary categories we had devised. Those who scored less than 5 would have been categorized as having and ‘Unhealthy’ body image. The pattern of questioning was varied in order to avoid a response bias setting in.

Persons who were first to fill in all eight blank squares for a sub-game were given a card with the name of the game on it together with the descriptive term which was designed to receive most responses for that game. The labels were; Image and Identity – Healthy: Food - Conventional: Adornment – Functional: Technology – Luddite: and Pain and Pleasure – Unconventional. The purpose of giving students a label was to reveal to them the category into which they had been placed and to identify them later when discussion was taking place. In this way students had time to reflect on their reactions to this labeling and hopefully would be willing to discuss the relative ‘fit’ of the label with their understandings of themselves.

Tallying Class Responses

In order that the ‘results’ of the sub-games could be used for generating a profile of the class’s body practices we needed to group students’ responses and organize mechanics for counting. With such a large number of students a speedy counting strategy was needed and materials were organized so that a minimum period of time was taken to calculate proportions and record data. The class was divided into eight sections marked out by the placement of teachers and students who were enlisted to help count. The Caller asked students to raise their hands for each category, for example, “Hand up if you scored less than 5 on Game 1”; then those who scored five or more on Game 1. Counters recorded the tally on Tally Sheets which had been prepared beforehand and labeled for ease of reference. The Tally sheet reproduced below illustrates how the questions were called, that is, the label =>5 (equal to or greater than 5) on a caption indicates that mostly the questions from that category were called out in playing the game, for example, in the Adornment game (Game 3) mostly questions from the ‘Functional’ category would have been called. This means that that dichotomized concept functioned as the label allotted to the first person to fill in all eight of their blank squares for that game. These corresponded to the labels on the cards given to the students as described above.

Figure 1: Sample of the Tally Sheets used to record numbers of students scoring 5 or more or less than 5 in each category

FIGURE 2 HERE

The game and input to this point took 45 minutes. Students were then given a 15 minute break during which teachers calculated totals for each category on the Tabular Tally sheet (Figure 3) and reproduced them in the form of a histogram on the transparency prepared with table axes.
The histogram derived from students’ responses in the Society and Gender class is reproduced in the section below where we discuss the ‘results’ (Graph 1).

FIGURE 3 HERE

Figure 3: Tabular Tally Sheet used to record numbers of students in each category.

Using the Outcomes as Teaching Tools

Whole class and small group formats were used to discuss issues and ideas arising from playing the game. A practical small group activity helped to consolidate knowledge and to develop understandings about sociological concepts and methods. Whole class observation and discussion of the histogram provided an opportunity for teaching practical skills in diagram reading and suggesting hypotheses.

Discussion of Issues

It became clear during class discussion that people often did not agree with the labeling of categories or the definitions of contrasting concepts. The process of constructing the questions and categories for the bingo game strategy was instructive in conveying to the students an understanding of the ways researchers construct questionnaires to be disseminated to large numbers of people. Not only do adequate definitions have to be agreed upon (face validity), but researchers also have to try to avoid constructing questions which are based upon cultural, gendered, racial and economic or class biases (construct validity). These reactions/reflectons can then be discussed with respect to the issues of sociological method and theory.

Practical Activity

One obvious category not used in the Bingo game was ‘Clothing’. In order for students to gain some experience in question design and strengthen the points made above, they were asked to construct questions for the Clothing category according to the dichotomy ‘Functional’ – ‘Expressive’. The practical exercise was useful in three ways. Firstly, suggestions from this exercise gave students an experiential understanding of the difficulty of generating appropriate questions for a diverse group of people and the issues that needed to be taken into account. It challenged them to provide clear definitions and/or rationales and to come to agreement with the larger group. Finally, it generated some questions that could be used for similar games in the future.

Discussing the Histogram with the whole Class

By way of introduction to this section we explained to students how questions for the games were designed and grouped. Also we described how we delivered a set of questions in specific ways in order for the game to ‘work’. Following is a description of the kinds of issues we raised with respect to the ‘results’.

The histogram was read for what it might reveal about students’ body practices and the reasons these results were achieved. For example, looking at the Adornment bar, we questioned, why would most students in this class appear to have a ‘functional’ attitude towards their use of adornment? Observations were made about the proportions of students in each category. We also compared response rates as they varied between games. The foregoing
observations led to discussions of such issues as truth telling, non-response, selective response and anonymity that bear on the interpretation of data gained from questionnaires.

Figure 4: Number of students in each category for the five Games (Dichotomized as scores of 5 and above or less than 5

In summary, the discussion of the histogram served a number of pedagogical purposes. It introduced the histogram as a method of displaying data and taught students how to read it. The diagram provided immediate feedback on a data collection process in which students had a vested interest. Finally it provided a kind of profile of the first year sociology class in terms of body practices in which students could locate themselves.

**Linking to Sociological Theory**

Differences of opinion were used inductively to examine sociological theories of the body and facilitate students’ exploration and understanding of other issues dear to the heart of sociology. In a recent class where students were asked to design questions for the category ‘Clothing’ along the lines mentioned above, one female student proffered the statement ‘The label is everything’ for the ‘Expressive’ category. This drew a categorical disagreement from one male member of the class who insisted that in the work context (with which he was familiar) suits with a designer label were absolutely essential to one’s acceptance and therefore the question should be placed in the ‘Functional’ category. This dialogue provided an excellent example for group discussions around social stratification and the construction of body practices in terms of class, gender, economics and so on. We could also examine the usefulness of theoretical models, which had been outlined in the beginning of the lecture, for conducting empirical investigations into the diversity of issues regarding surveillance and construction of bodies.
Feedback and Conclusion

To what extent did we succeed in our stated aims? Time consuming as the development of innovative teaching strategies may be, it is probably easy compared to assessing their success or failure. In the case of ‘Bingo for Beginners’ we have only two short-term measures of outcome: the impressions of the two groups involved in the process, the students and the teachers.

Student Feedback

Fifty-seven students who took part in the session returned the feedback sheets supplied. (We did not count the numbers present: based on responses recorded in the histogram we estimated approximately 260). As there was no pressure on students to reply, we considered this an ‘acceptable’ result. Not surprisingly, almost all comments were highly favourable, though three of them considered the session ‘boring’ or ‘pointless’. The session generated a positive atmosphere and informal monitoring of the group showed that participation levels were very high.

Most responses may be grouped into four categories. Firstly, most students thought the exercise “fun” (e.g. ‘Really enjoyable lecture’ ‘It was good – a fun way to add a bit of variety to lectures’ ‘A fun way to learn). Secondly, about half commented on its ‘novelty’ value (e.g. ‘A nice change from the normal lectures’). Thirdly, and most importantly for us, nearly all thought the session ‘informative’ (e.g. ‘A better insight into such topics’ ‘Relaxed and informative session’ ‘Interesting and provided good information). Finally, quite a few approved of the participatory nature of the exercise (e.g. ‘good because it was an interactive approach with students, so we were more likely to remember the concepts’ ‘It was good to have a session like it where everyone was involved’).

Teacher Feedback

As participants in constructing and administering the game, the teaching team felt extremely positive: though it took a lot of work, it was enjoyable and the quality of material was enhanced because the process enabled everybody to contribute. Additionally, we recognized that on subsequent occasions, the game would need only minor changes.

We concluded that the approach clearly held the attention of the class and they appeared, through their involvement, to absorb knowledge on both a skills level (i.e. designing research material ) and a substantive level (i.e. understanding how culture is inscribed on the physical body). The approach appears translatable not only to other areas of sociology but to other disciplines as well; in addition it could be used in smaller groups or as a tutorial exercise in which students could be involved in devising a similar game for the class.
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Appendices

Figure 2: Bingo Game sheets used by students to register a ‘yes’ answer

Figure 3: Tabular Sheet used for recording and adding tallies produced by each person who counted

Appendix 2

Sample questions for the sub-game Body Image

BODY IMAGE

Healthy

1. Do you have a regular exercise program?
2. Do you take pleasure viewing your image in a mirror?
3. When people compliment you on your appearance do you usually believe them?
4. When you compare your body size to that of others do you usually judge yourself positively?
5. Are you generally content with your appearance?
6. Do you sometimes feel concerned about the state of your fitness?
7. Do you feel okay drinking water when all of your friends are drinking alcohol?

Unhealthy

1. Do you think you spend a lot of time worrying about your body size?
2. Do your feelings about your body frequently prevent you from enjoying public activities like swimming or other water sports?
3. Do you usually feel dissatisfied after you have been shopping for clothes?
4. Have you been on a weight change diet 5 or more times in the past year?
5. When preparing to go to party, do you get very stressed over the way you look?
6. Do you always feel guilty about eating food you know is bad for you?
7. Do you attack zit and/or wrinkle with an many cures as you can lay your hands on or afford to buy?
8. Does your height embarrass you i.e. too tall or too short?