

A Q-METHODOLOGY ANALYSIS OF JOURNALISTS' REFLECTIONS ON LEARNING AT WORK

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ABSTRACT

Journalism education and training has always suffered from doubts about its actual relevance to the preparation of young journalists entering the industry. It is a doubt encouraged by imaginaries such as the theory-practice dichotomy that suggests that theory can happen in one site of practice, and practice can be found in another; and that there exists a transition from one site to the other. The practice theory of Jean Lave and Etienne Wenger (1991) suggests that practice is primary in both sites; in this case, schools of journalism and the news industry. The concept of legitimate peripheral participation, with its emphasis on situated learning, can be used to build a case for a journalism education focused primarily on building the kinds of learning that make the mentorship found in industry possible and indeed viable. Journalism education then becomes a proper preparation for learning “on the job”. This study used Q-methodology to explore the opinions of journalists' reflections on their most effective learning, and found significant similarities between their experience and the type of learning theory advocated by Lave and Wenger.

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INTRODUCTION

During the mid-1980s I became profoundly dissatisfied with the many different approaches to learning, many of which were psychological and based on work with animals and children and, as an adult educator, I felt that these neglected major elements in our humanity. Additionally, I was unable to accept the traditional view of theory being learned in the classroom and then applied in practice, since the latter tended to suggest that people act without learning, which I could not accept (Jarvis 2006: 8).

There are two key targets in adult educationalist Peter Jarvis's objections to standard models of learning. One is the lingering Cartesian-derived mind-body dualism that posits learning as something that happens *in the mind* – “if we have one” (Jarvis 2006: 42) – and practice that is done *by the body*. In Jarvis's terms, it is the whole person who learns, not merely his or her brain. Philosopher Gilbert Ryle (1949) famously joined the mounting criticism of this dichotomy that continued to sustain behaviourist thinking well into the late 1960s by calling this imaginary “the dogma of the ghost in the machine” (1949: 15-16). That this imaginary has survived the demise of behaviourism may have to do with computer models of mind (Dreyfus 1992); and the ease with which “mind” and thinking can be imagined as *software*, and the rest of our being – limbs, internal organs, and brain functions – get listed as *hardware*.

The other target in Jarvis's book rests on the distinction between primary and secondary socialisation (Jarvis 2006). This distinction – between learning in school, and learning in life and work – is more complex and has been more difficult to dismiss. However, the cumulative influence of conceptions of practice derived from thinkers such as Pierre Bourdieu, Ludwig Wittgenstein and Alasdair MacIntyre has helped weaken the sense in which these two forms of socialisation have been seen as utterly different. Jarvis (2006: 61) identifies secondary socialisation with a theory of *situated learning* found in Lean Lave and Etienne Wenger (1991). Better known for their concept of *legitimate peripheral participation* and *communities of practice*, these authors have implied, if not said quite so explicitly, that distinctions between primary and secondary socialisation are at best an institutional fiction. Experiential learning is central to all learning. John Bowden and Ference Marton promote a similar line of thought – learning from experience – in their book, *The university of learning*:

Students do not react to the learning environment as such, they react to the learning environment as it is experienced by them. They experience the learning environment in accordance with their way of handling it – or the other way round: they handle the learning environment in accordance with their experience of it (Bowden & Marton 1998: 8).

Journalism education and training is one field among many where insights into experiential learning offered by Lave and Wenger can be particularly constructive and productive; where the necessary skill sets that enable lifelong learning, successful internships, and the readiness to be mentored in future communities of practice are

initially engendered. Certainly the literature on journalism education and training in South Africa bears ample testimony to the recognition that the graduation from tertiary level to the newsroom is not simply a transition from a domain of “learning theory” to another of “putting it into practice”.¹

This article uses a Q-methodology (McKeown & Thomas 1988; Stephenson 1953) study of journalists’ opinions of learning the craft – where the factors derived from an analysis of a questionnaire suggest they believe their practice to have been more meaningfully learned *in situ* – to present a case for considering the concept of legitimate peripheral participation among its cognate terms (Lave & Wenger 1991; Wenger 1998; Wenger, McDermott & Snyder 2002) as a central element informing the advances being made in journalism education and training at tertiary level.

LEARNING IN COMMUNITIES OF PRACTICE

By the term legitimate peripheral participation, Lave and Wenger (1991: 29) “mean to draw attention to the point that learners inevitably participate in communities of practitioners and that the mastery of knowledge and skill requires newcomers to move toward full participation in the sociocultural practice of a community”. The term is usually articulated with the cognate concepts of “situated learning” and “communities of practice” (Cox 2005: 528-529; Wenger 1998). As Andrew Miller (2002: 49) notes:

It is impossible to discuss mentoring and situated learning without highlighting the work of Jean Lave and Etienne Wenger (1991). Historically a form of mentoring was evident in the master-apprentice model of the medieval guild system. Lave and Wenger studied learning in five traditional and non-traditional apprenticeships in Mexico, Liberia and the United States. Their study showed how, in work settings, learning occurred within ‘communities of practice’. Apprentices moved from ‘legitimate peripheral participation’ in the workplace as newcomers to a central role over time as they learnt, recreated and finally replaced the craftspeople from whom they had learnt. Much of the learning that occurs is tacit rather than intentional as apprentices become expert through observation and noting what is valued in their community of practice.

These concepts resonate in Peter Senge’s (1990) work on the “learning organization”, where legitimate peripheral participation and situated cognition are not focused on individual competencies and learning (albeit cognition as a contextual process), but emphasise participation and practice in the cooperative nature of learning communities (Buisse, Sparkman & Wesley 2003: 266-267). That legitimate peripheral participation in particular foregrounds learning in industrial and organisational settings is unmistakable. However, there is no dearth of education theorists who argue that the social practices to which the concept refers are exclusive to workplace contexts. Situated cognition is part of all learning and mentoring (Brown, Collins & Duguid 1989; Brown & Duguid 1991; 2001).

In short, both learners and contexts are inseparable parts of the phenomenon of learning (Lave 1993; Suchman 1988). Learning from a practice-based approach is always situated in a particular site of practice such as a newsroom, a tertiary institution, and even at home (Lave & Wenger 1991: 38-39). The assumption is that all learning is situated irrespective of whether this occurs in formal or informal settings (Lave 1988: 25ff).

Mentoring is primarily a social practice, and the community of practice construct central to “situated learning” helps to negate the individualistic and mentalistic notions of learning encouraged by Cartesian thinking (see Jarvis 2006). Lave and Wenger define a community of practice as “a set of relations among persons, activity, and world, over time and in relation with other tangential and overlapping communities of practice” (Lave & Wenger 1991: 98). A community of practice, accordingly, is a set of relations among persons and activities that effectively provide the cultural, historical and linguistic support that makes it possible to “know” the particular heritage that defines knowledgeable practice. Participation in practice is “an epistemological principle of learning” (Lave & Wenger 1991: 98).

A central idea of the situated learning perspective is the way in which individuals form social identities as members of communities of practice. The concept of legitimate peripheral participation (Lave & Wenger 1991) expresses this connection in so far as people in sites of practice participate in increasingly taken-for-granted ways that mutually transform both individual identities and the organisations to which they belong. The concept draws attention to the process of moving from being a newcomer among a group of other practitioners “toward full participation in the sociocultural practices of a community” (Lave & Wenger 1991: 29). Newcomers to the group – such as cub reporters joining a newsroom – eventually become old-timers through gradual access to participate in the defining practices of the group. The eventual transformation in identity that arises in the individual participant occurs in an outward change of perspective as he or she moves from legitimately doing and learning on the fringes of the community, and eventually moving towards the centre and playing an increasingly central role in its purposes (Henning 2004: 143).

It is important to emphasise – as opposed to the one-way transformation inferred in Warren Breed’s (1955) study – that the formation of individual identity by the process of ever increasing participation in a community of practice is a dialectical process of change that occurs also in the organisation as a whole as the new generation of members joins the community of practice. This idea is not foreign to the field of experiential education: “Every genuine experience has an active side which changes in some degree the objective conditions under which experiences are had” (Dewey 1938: 39). The relation between increasing individual participation and changes in the community as a whole involves a dynamic interaction between individuals and community (Linehan & McCarthy 2001).

METHODOLOGY

On the data set

In terms of the view given above, a question emerges as to the extent to which concepts such as situated learning, legitimate peripheral participation, and communities of practice resonate with journalists' self-understandings of their learning experience and the kinds of learning that best describe how they mastered their careers.

In order to answer this question, the data of an earlier research project (an attempted newsroom ethnography) was available to hand to begin with. In an attempt to investigate the efficacy of "talk at work", or mundane conversation, in the constitution of organisation, I facilitated nine one-on-one interviews between senior journalists (one journalist interviewing nine of his colleagues) who had been in the same newspaper firm for more than 15 years, and who had known each other for at least that period of time. These were all employed at a single newspaper firm that publishes four titles in a South African city. The researcher was not present at the interviews (which took place between 2005 and 2006) so as to allow these to happen as naturally as possible. These were recorded on audio tape, and transcribed for purposes of conducting and ethnomethodological conversation analysis (Schenkein 1978).

Conversation analysis conventionally pays little attention to topics and discourse. Instead, it is interested in the pragmatics of talk. However, having conducted an analysis of the transcripts in a manner that broke with this convention², a large set of statements these journalists had made about learning to do journalism was available for further analysis. Accordingly, a questionnaire was composed and sent to the more than 50 journalists employed in all sections of the same firm. The form provided a set of 16 statements reflecting opinions on tertiary journalism education, learning "on the job", and newcomers (or junior staff) to the newsroom. Each statement was phrased positively, even if the original opinion had been negative.

The questionnaire gave two instructions. The first asked respondents to evaluate each statement by means of a standard Likert scale ranging from "true in my experience" (5) to "untrue" (1). The second instruction asked them to rank-order the same statements from that which most represented their experience (1) to that which they identified with least (16). These statements were then to be arranged according to Table 1, allowing for a normal distribution. This is called a "Q-sort", which was successfully completed by 41 out of the 42 who had completed the Likert scale section of the questionnaire.³

The Likert scale evaluations were analysed by means of a set of Chi-square tests, and the results were reported in a paper read at the World Journalism Education Conference in 2010.⁴ A marginally revised version of this paper was subsequently published (Caldwell 2010). But while the analysis of the Likert scale aspect of the questionnaire expectedly led to an aggregated (or generalised) depiction of the sample, the results seemed somewhat exaggerated, if not implausible, when compared to the original data. Use of the Likert scale in attitude measurement studies normally produces highly reliable and valid results. But reliability often suffers when the scale is used to study

smaller groups – as in this case – where instances of central tendency bias (and members’ tendencies to hold many strong opinions) tend to cause the attitudinal “picture” of that group to be misrepresented. (For a discussion on these and other weaknesses of the Likert scale, see McIver and Carmines (1981), and Manstead and Semin (2001)).

The hunch to include the Q-sort section – almost as a “back-up” strategy – paid off. The Q-methodology that it was intended for addressed at least two of these weaknesses. Q-method analysis is used where “individuals represent their viewpoints by ranking a common set of statements, followed by a factor analysis that reduces these many viewpoints to a few shared perspectives” (Danielson 2009: 219). The method addresses the biases that often affect use of the Likert scale by forcing respondents to consider the corpus of statements holistically, hence producing a more accurate profile of the attitudes and viewpoints held by the sample group (Danielson 2009: 226-231).

One of the more appealing aspects of Q-method is that, unlike standard quantitative methods that require large samples for validity, it is ideally suited to the study of small groups. The purpose of a Q-study is to identify configurations of attitudes that people have concerning an issue; particularly one that matters, is contested and given to considerable debate. In other words, the method is used to uncover the discourses people use; to identify groups of individuals who hold like-minded positions within a discursive domain or practice. Unlike methods used for the study of large populations, “[i]n a Q-study, *a small group* of people rank a set of statements about some issue based on how well the statements reflect their own thinking” (Danielson 2009: 220, italics added). Thus Q-method addresses the weakness of using a Likert scale on a small sample.

As case studies in general – and ethnographic studies in particular – usually attend to smaller samples, this makes Q-methodology an ideal quantitative supplement to the qualitative approaches a researcher would normally choose to use; where one may expect the results derived by means of standard quantitative methods (typically suited for the study of a larger population) to be invalid. In the case of the current study, the method was used to identify patterns of opinion concerning learning held by a sample of journalists employed at a single newspaper site.

On q-method

Q-methodology may be defined as a rigorously quantitative research approach for the systematic scientific study of subjective perceptions expressed by a selection of individuals drawn from any particular discursive community (McKeown & Thomas 1988). The method has been described as a statistical method that “combines the strengths of both qualitative and quantitative research traditions by enabling the dimensions of subjective phenomena to emerge from the data in a manner that reflects a perspective intrinsic to the individuals” (Dennis & Goldberg 1996: 104). Q-method was developed to study distinct types of beliefs, attitudes, and perspectives that are inherently subjective in nature (Brown 1980; Stephenson 1953; 1978), and is used to

analyse “the phenomenological world of an individual”, or of a relatively small number of individuals, “without sacrificing the power of statistical analysis” (Stephen 1985: 193). The method is therefore a useful tool to gain insight into either a single person’s self-perception, or the patterns of opinion held by a number of individuals involved in a study. Brown (1980) suggests that between 40 and 60 participants comprise an adequate Q-study. Others say this number may be smaller and even, for that matter, much larger (Previte, Pini & Haslam-McKenzie 2007: 139; Watts & Stenner 2005: 79).

The method typically asks respondents to arrange (or Q-sort) a corpus of subjective statements in order of importance or relevance to their opinions, and to arrange these according to a scale (e.g. -3 to +3) in such a manner as to create a normal distribution (see Figure 1). That is, the greatest number of statements is assigned to the category 0; fewer are assigned to -1 and +1 equally; fewer still go to -2 and +2; and usually one easy are assigned to -3 and +3. While the Q-sort is the core of Q-methodology (and the set of statements is called a Q-set), the ability to conduct a Principal Components analysis provides its definitive “business end”.

The methodology measures the extent to which each participant’s responses to the statements correlate with the responses of each other participant. By means of factorial calculation, participants are grouped into factors depending on the correlations of the statement orders, yielding prototype factor arrays – the statements in rank order for that factor type. While the method’s fundamental orientation is quantitative, as with the standard forms of factor analysis (i.e., R-factor analysis) it emulates, Q-methodology requires no quantification before analysis can proceed. The statements and their responses remain the primary data without need of any initial calculation or reconfiguration.

In some ways the method can be seen as neutralising the epistemological and methodological division between qualitative and quantitative approaches. It is also considered to be particularly suited for the study of issues that are socially contested, argued about and debated; hence it becomes particularly relevant for the current study.

As a study of subjectivity, the method adopts the participant’s point of view rather than imposing *a priori* a theory or frame presupposed by the researcher (Goldman 1999: 590-593). Q-methodology “relies on the axiom that researchers should acknowledge and present the reality constructions of different women and men without prejudicing or discrediting them, and without insisting on the superior (‘objective’) status of the researcher’s own construction of reality” (Kitzinger 1986: 153).

Q-methodology has a long association with communication research. The method has its genesis in the work of the statistical psychologist William Stephenson in the late 1930s (Stephenson 1935; 1936), and has its grounding in psychology research (Wittenborn 1961). More recently, Stephenson’s method has been taken up beyond psychology, across the social sciences (McKeown & Thomas 1988: 11). The method has gained some recognition in empirical research in communication (Self 1996: 439, 442; Stephen 1985), journalism (Sloan 1990: 302-306), and is particularly well-suited

to studies on audiences and uses and gratifications (Glasser 2000: 24; Singer, Craig, Allen, Whitehouse, Dimitrova & Sander 1996). Various studies in African communication research have applied it with good effect (Du Plessis, Angelopulo & Du Plessis 2006; Grosswiler 1996).

Procedure of q-methodology

Q-methodology typically proceeds by way of five phases. The first phase resembles the start of almost any research project: to determine the objectives and defining questions of the study. In this case, an immediate question concerned how widespread the viewpoints expressed in the interviews were among all or most journalists employed at that site. For this reason, a survey requiring both Likert scale evaluations and a Q-sort of a representative selection of those viewpoints was distributed at the site.

The second phase of the Q-process is to identify statements that collectively represent the fullest range of viewpoints present in the concourse (McKeown & Brown 1988: 12-13, 57). Concourse statements are subjective expressions of opinion communicated during the course of ordinary conversation, distinguished from statements of fact, and which are “broadly representative of the opinion domain at issue” (Watts & Stenner 2005: 75). This is typically done by conducting focus groups or interviews with a sample of members of the community or population one intends to study.

A concourse is expected to contain relevant aspects of a discourse – an institutionalised way of speaking about a particular subject. Interviews, focus groups and other naturalistic devices are commonly preferred over decontextualised sources for purposes of extracting a concourse (Robbins & Krueger 2000: 638-639, 646, n.1). The concourse for the current study was drawn from the nine one-on-one interviews between senior journalists mentioned above. Similarly, in her study about the discourses of lesbianism, Kitzinger (1986) conducted interviews with lesbian women to develop a concourse. Grosswiler (1996: 94) used “questionnaires and in-depth interviews with about 35 media workers” in his study of Tanzanian media changes in the early 1990s.

Phase three includes the extraction of statements from the concourse, and the design of the table upon which these are to be arranged, or Q-sorted. It is difficult to know for certain how many statements make up an adequate Q-set, and whether 16 statements are sufficient, as in this study. Stephen (1985: 195) cites a recommendation to use no more than 75 items. Previte, Pini and Haslam-McKenzie (2007: 137) say “[t]he size of the statement set will vary, but typically it is between 30 and 60 statements”. On the other hand, Cross (2005) argues that studies carried out with as few as 10 statements allows participants to better express their points of view.

While the 16 used in the current study appears below the optimal number, Stephen’s (1985: 196-198) discussion of variously-sized Q-sets and their distributions offers no such judgment. Goldstein and Goldstein’s (2005) study of a single person-set uses 25 statements; a figure they justify by 25 to 75 Q-sort items being “the usual size of a Q sample” (2005: 41). The 54-item Q-set used by Du Plessis, Angelopulo and Du Plessis, D (2006) certainly seems optimal, however experts do admit that “[t]he concourse of statements may be

considerably smaller ... given time or resource constraints” (Robbins & Krueger 2000: 639).

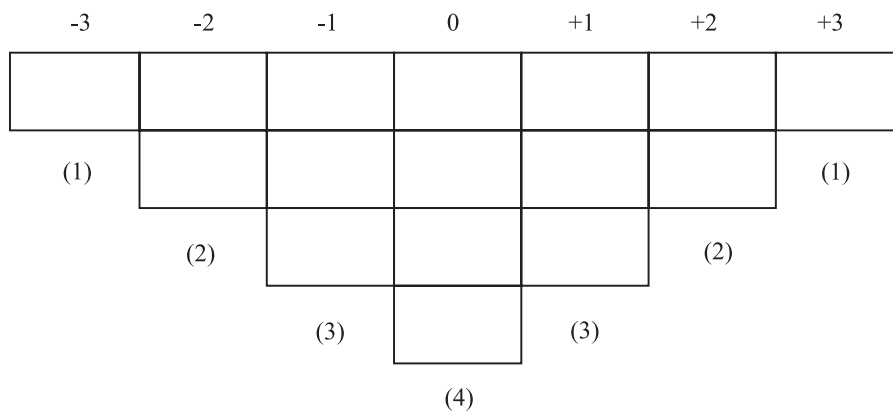
Overall, researchers must ensure that they have covered the breadth of opinions that may circulate about a discourse, but also ensure they have avoided unnecessary duplication as well as under- or over-sampling (Previte, Pini and Haslam-McKenzie. 2007: 137-138).

Coming after the development of the Q-set, the fourth phase attends to the actual Q-sort. For this study, participants were asked to rank the 16 statements (see Table 1), sorting them into seven columns on the basis of “most agree” (+3) to “most disagree” (-3), with the required number of statements in each column as follows:

Score	-3	-2	-1	0	1	2	3
Items	1	2	3	4	3	2	1

This is a ranking procedure which Brown (1980: 7) calls “the technical means whereby data are obtained for factoring”. The usual method is to write each statement on a card, and to instruct respondents to assign each to a pile in a quasi-normal, symmetrical distribution as per Table 1. Nowadays it is common to conduct Q-sorts with a computer or on the Web (Robbins & Krueger 2000: 639). However, in the current study the statements and grid were presented to respondents in the questionnaire, together with carefully-worded “conditions of instruction”.

FIGURE 1: ARRANGEMENT OF STATEMENTS



-3	-2	-1	0	+1	+2	+3
Disagree most				Agree most		

The fifth and final phase of the Q-methodology process is the factor analysis, “where subjects’ responses are typically factor-analysed in order to identify patterns across individuals” in contrast to “traditional R-methodology, which is concerned with determining patterns across variables” (Previte *et al.* 2007: 139). In other words, Q-method is essentially a factor analysis, but instead of character traits and the like being factored as in standard factorial analysis, it is persons that are factored (McKeown & Thomas 1988: 46).

Q-methodology is occasionally described as an *inversion* of R-factor (Danielson 2009: 219), or an “inverted factor analysis” (Westwood & Griffiths 2010: 582) which can be imagined where, compared to the practice in SPSS of labelling factors in columns and cases in rows, the cases are assigned to columns and the factors to rows. Unlike R-factor analysis (see Robbins & Krueger 2000: 640-641), variables in Q-method are not grouped in a study, but instead the respondents in the survey are compared between the variables that are identified in the method’s *exploratory* factor analysis – used to identify the number or nature of factors responsible for covariations among variables. Q-method is based on the correlation of people and not variables. It is therefore typically synthetic rather than analytic. That is, Q-method does not break the whole array of opinions (or the concourse) into discrete parts, but maintains the integrity of the concourse of which any element is a constituent part.

FINDINGS

The purpose of Q-methodology is to identify the factors upon which several participants in a survey can be “loaded” and thereby compared. “Individuals who ‘load’ significantly on the same factor have sorted the statement items similarly and consequently will be those who have a similar discursive position” (Previte, Pini and Haslam-McKenzie. 2007: 139).

Using the PQMethod freeware programme (available at www.qmethod.org), a Principal Components factor analysis indicated a larger number of significant factors than had been expected. Table 1 provides a list of the 16 statements and their z-scores for the three most significant factors. Table 2 provides a list of respondents and their z-scores regarding the same factors.

TABLE 1: STATEMENTS AND Z-SCORES FOR MOST SIGNIFICANT FACTORS

Rank statement totals with each factor		1	2	3
1.	My most important learning experience came during a casual conversation with a colleague in the newsroom.	1.66	0.00	1.43
2.	I learned most about being a journalist when my news editor criticised my work performance.	0.73	1.28	0.14

Rank statement totals with each factor		1	2	3
3.	My most influential learning experience came from observing the work habits of a colleague(s) who was more accomplished than I was.	1.15	-1.41	0.71
4.	My most important lesson came during my tertiary training before I began my career.	-0.05	-1.36	-1.24
5.	The lesson(s) that improved my expertise most came from a senior reporter who was my effective mentor.	0.71	-0.38	-0.40
6.	My expertise improved most significantly after I attended a training event conducted at my place of work.	0.24	-0.24	-1.45
7.	The lesson that impressed me most came during a casual conversation with a colleague(s) after work.	-1.28	0.42	2.14
8.	My most important lesson came when, having made a mistake, a colleague corrected me.	-0.70	1.61	0.27
9.	The lesson that improved my performance most came when my news editor explained to me what I was regularly doing wrong.	0.67	0.14	-0.15
10.	My most important learning experience came when I was assigned a task(s) that I found to be particularly repetitive.	0.64	0.35	0.22
11.	My best learning experience came when I worked on one or more projects as a relatively junior member of an investigative team.	-0.39	1.65	0.44
12.	A positive turning point in my career came when I did something for which I could have lost my job.	0.11	0.76	-0.67
13.	My expertise improved most after I was sent on a training course mid-career.	-0.75	0.03	-1.65
14.	My expertise improved most after a senior reporter (not one I considered a mentor) corrected me for something I was not doing well.	0.58	-0.55	0.65
15.	My expertise in journalism was improved by working on a specific story (or news beat, or specialisation) that presented a particular set of challenges.	-1.99	-1.46	-0.15
16.	My expertise improved after I received an award (or some form of recognition) as a journalist.	-1.35	-0.83	-0.27

An advantage of using the Principal Components analysis in the programme is that it provides eigenvalues for each factor; eigenvalues being a measure of the relative contribution of a factor to the total variance in the correlation between each score and every other score.

The eigenvalues of the eight factors extracted by the analysis (with percent of explained variance in parenthesis) are: factor 1 having an eigenvalue of 6.6452 (16); factor 2

being 5.8018 (14); 4.5035 (11) for factor 3; 3.9944 (10) for factor 4; 3.0861 (8) for factor 5; 2.9391 (7) for factor 6; 2.6383 (6) for factor 7; and 2.4822 (6) for factor 8. Normally the researcher would select all factors with eigenvalues equal to and greater than 1.000. However, for this study, only those factors with eigenvalues greater than 4.000 were selected on grounds that these each made up a loading of more than ten percent of the Q-sort, and cumulatively accounted for 41 percent of the factor loadings. This accounted for the seven participants loaded on factor 1, six on factor 2, and three on factor 3 (see flagged items in Table 2). The remaining factors recorded fewer than three participants, and were therefore discarded.

TABLE 2: RESPONDENTS AND Z-SCORES FOR MOST SIGNIFICANT FACTORS

Q-Sort	1	2	3
1	0.6693*	-0.0676	-0.3334
2	0.1417	0.0224	0.7227*
3	0.2236	-0.0983	0.0333
4	0.6945*	-0.0777	0.1929
5	0.1400	0.0164	0.0916
6	0.1769	-0.1962	-0.2389
7	-0.0526	0.0432	0.5974
8	0.0774	-0.0726	-0.2312
9	-0.4239	0.1987	0.0565
10	0.1658	0.5254	-0.2354
11	-0.2032	-0.2239	0.5262
12	-0.0753	-0.3546	0.3290
13	0.0011	-0.0228	-0.7952*
14	0.1153	-0.6609*	-0.2983
15	-0.0969	-0.3717	0.1178
16	0.2950	0.8411*	0.1132
17	0.0330	0.0339	-0.1049
18	0.1300	-0.1635	0.0066
19	0.6354*	0.4083	-0.1316
20	0.6238*	0.0009	-0.0154
21	0.1687	0.0543	0.1258
22	0.3701	0.1722	-0.3427
23	-0.2866	0.7341*	-0.2063
24	-0.1033	-0.1893	-0.0171
25	-0.0722	0.7027*	0.1084
26	-0.1443	-0.3901	-0.1218

27	0.3643	0.4134	-0.1112
28	0.2336	0.2336	0.1252
29	0.6504*	-0.0035	-0.2726
30	0.2461	-0.0308	-0.0455
31	0.0392	0.0392	0.5613
32	0.3535	0.1632	-0.0674
33	0.8890*	-0.1258	0.1363
34	-0.0667	0.6751*	-0.1974
35	0.4816	-0.1705	-0.0226
36	0.2587	-0.1506	-0.2092
37	0.1759	0.3527	0.1072
38	-0.4410	0.1224	-0.1974
39	-0.0437	-0.7091*	-0.5338
40	0.7013*	0.4108	0.2285
41	0.0930	0.1055	0.8595*
Eigenvalues	6.6452	5.8018	4.5035
Percentage	(16)	(14)	(11)

Each factor can be characterised and labelled according to its particular configuration afforded by the extent to which each participant's responses to the statements correlate with each other participant's responses.

Factor 1: 'Ask, look and learn'

The highest loaded statements that constitute factor 1, together with their normalised factor scores in brackets, are statements 1 ($z = 1.664$), 3 ($z = 1.148$), 2 ($z = 0.734$), 5 ($z = 0.713$) and 9 ($z = 0.669$).

The combination of each item for this factor, with the possible exception of statement 2, suggests a journalist who actively learns on the job with a high degree of self-motivation. This journalist engages conversationally with others in his or her community of practice. This activity can be compared to talking around the water cooler. The person also has an eye out on learning from his or her betters; and is able to learn from criticism, whether this comes from an editor or a mentor.

Factor 2: 'Trial and error'

The highest loaded statements that constitute factor 2, together with their normalised factor scores, are statements 11 ($z = 1.646$), 8 ($z = 1.610$), 2 ($z = 1.275$), 12 ($z = 0.761$) and 7 ($z = 0.417$).

The combination of each item in this factor suggests a journalist who has learned from his or her own mistakes, and has taken note of any constructive instruction he or she has received. This journalist is distinguished from that of the first factor in that, in statement 8, he or she probably has to make a mistake a little more spectacularly in order to learn from it. This person is also able to learn from criticism directed by seniors

and colleagues. He or she also learns well in a team where there is regular instruction and a high degree of conformity (statement 11).

Factor 3: 'Taking note'

The highest loaded statements that constitute factor 3, together with their normalised factor scores, are items 7 ($z = 2.140$), 1 ($z = 1.427$), 3 ($z = 0.713$), 14 ($z = 0.647$) and 11 ($z = 0.443$).

This factor represents a journalist who has possibly adopted principles of best practice from discussions he or she would have had mainly with colleagues at work. We can probably describe persons loaded on this factor as possessing the best of factors 1 and 2. Accordingly, this journalist learns from casual conversations – whether these are in the newsroom or after work, observes the work practices of others, and learns well by working in a team.

TABLE 3: SUMMARY OF STATEMENTS

Statements in more than one factor		1	2	3
1	My most important learning experience came during a casual conversation with a colleague in the newsroom.	1.66*	0.00	1.43*
2	I learned most about being a journalist when my news editor criticised my work performance.	0.73*	1.28*	0.14
3	My most influential learning experience came from observing the work habits of a colleague(s) who was more accomplished than I was.	1.15*	-1.41	0.71*
7	The lesson that impressed me most came during a casual conversation with a colleague(s) after work.	-1.28	0.42*	2.14*
Statements in one factor only				
5	The lesson(s) that improved my expertise most came from a senior reporter who was my effective mentor.	0.71*	-0.38	-0.40
8	My most important lesson came when, having made a mistake, a colleague corrected me.	-0.70	1.61*	0.27
9	The lesson that improved my performance most came when my news editor explained to me what I was regularly doing wrong.	0.67*	0.14	-0.15
11	My best learning experience came when I worked on one or more projects as a relatively junior member of an investigative team.	-0.39	1.65*	0.44*
12	A positive turning point in my career came when I did something for which I could have lost my job.	0.11	0.76*	-0.67
14	My expertise improved most after a senior reporter (not one I considered a mentor) corrected me for something I was not doing well.	0.58	-0.55	0.65*

LEARNING FOR PRACTICE

A composite summary of the statements that appear in any two factors is given in the top section of Table 3. Statements that appear once are given in the lower section. Statements 1, 2, 3 and 7 considered together show a remarkable affinity with the conditions and characteristics of Lave and Wenger's (1991) concept of legitimate peripheral participation. However, one would be mistaken to read into this concept, in light of the findings of the Q-method analysis, that journalism education and training has little or no value for newcomers to the industry. In other words, to be "thrown in the deep end" may well force one to learn quickly; but without the prior character formation in *learning how to learn*, the result may be sinking rather than swimming.

Concerning the participants in the Q-sort, their noted capacity for situated learning (or to be mentored) is a skill set they may possibly have learned through prior education and learning. Situated learning holds that activity and perception precede conceptualisation, and is principally a sociocultural phenomenon rather than a personal activity in which an individual merely memorises a body of knowledge. "This represents a shift from emphasizing the individual's learning contexts to a focus on what it means to learn as a function of being a member of a community of learners" (Buysse, Sparkman and Wesley 2003: 267). This goes beyond mere "team learning" (Wesley & Buysse 2001: 117), and recognises Russian psychologist Lev Vygotsky's (1978) view that students working alone acquire fewer skills than when they work with a more experienced person, or mentor, who helps them internalise unfamiliar and difficult material.

What is also recognised is a thorough-going praxis approach to learning from experience that advocates learning as situated within communities of practice (Wenger 1998: 137-139), and which is premised on the inseparability of relationships between individuals' largely tacit knowing and the social worlds in which they think and act (Brown, Collins and Duguid 1989: 32-33; Brown & Duguid 2001: 203-206). It is imperative to note here, as Lave and Wenger (1991: 35) write, that "learning is not merely situated in practice – as if it were some independently reifiable process that just happened to be located somewhere; learning is an integral part of generative social practice in the lived-in world".

Situated learning has traditionally been a part of the induction and mentoring of journalists in the industry through the practice of mentoring and apprenticeships; and it is not unlikely that the decline in that practice, together with the much-stated decline in journalism standards, is linked to the juniorisation that has made mentorship a luxury rather than the norm (Adam 1989; Wasserman 2005; Witschge & Ngyren 2009). In the 2002 Sanef National Skills Audit (Deuze *et al.* 2002), for instance, Doug Eastman (Deuze *et al.* 2002: 105) comments: "Editors and senior reporters need to expect mentoring to be part of their responsibilities." Eric Louw (Deuze *et al.* 2002: 110) writes: "[J]uniorisation ... results in poor management, and a dramatically reduced organizational capacity for staff mentoring, which in turn generates reduced job satisfaction for newcomers." Doug Newsom (Deuze *et al.* 2002: 113): "At the skills

level, it is the responsibility of educators to get the students internships and to mentor them, even after they leave, because they are not getting critical examination of their work on the job.” In many respects these views underlie Henrik Örnebring’s (2008) study of the self-understandings of journalists in Britain, where there are concerns about a move away from mentoring and apprenticeships in favour of relying on formal education and training.

Given media convergence and the perpetual change that has made newsrooms unrecognisable to anyone who had “been there” a decade ago, an education system structured as if to produce “spare parts” for industry may well be training for immediate redundancy. Huang *et al.* (2006: 225) note from a source in the American news industry ten years ago, when convergence was changing newsrooms inexorably: “It’s a multimedia world out there.... If you’re just being prepared to write stories, you won’t be prepared.” Offering courses on content, technological and corporate convergence might well impart sufficient “know that” knowledge to aspirant journalists, but the equally real matter of *role convergence* requires “know how” knowledge that is not learned quite as easily; nor is a programme modelled on turning out a “superhack master of multimedia” a viable option for educators (Huang *et al.* 2006: 226-228).

Of the four types of convergence, role convergence has the most direct effect on future journalism education. Within the media industry, there are serious doubts about whether training cross-media journalists is possible or even desirable (Huang *et al.* 2006: 228). Given these challenges, industry sources appear remarkably sanguine in their expectations. “The fully formed, all-purpose, multiplatform, gadget-laden journalism grad is NOT what we’re looking to hire,” said one executive editor. “[C]urrent journalism students need to learn to cooperate and collaborate across newsrooms” (Huang *et al.* 2006: 228, 229).

Huang *et al.* continue their paper with Chi-square analyses of responses by editors and “news professionals” to various questions such as which skills should be learned “on the job”, and which should be learned in the academy. In a not dissimilar paper, Australian journalism educator Beate Josephi makes a telling point that graduates “entering the organizational sphere” find themselves in many respects “back at school” (Josephi 1999: 77-79). Interviewing both junior reporters and senior staff at a leading Australian newspaper, Josephi found that opinion on the whole attributed the most important learning to that which occurs during the course of actual practice; hence, situated learning. Christine Tatum’s (2000) article on mentoring young journalists in the United States reflects both upon her having been often painfully mentored by a news editor, and upon how this experience fashioned her approach to grooming young aspirants for a multimedia environment (teaching the basics well).

CONCLUSION

This article was largely motivated by a dissatisfaction with the results of having used a Chi-square analysis on Likert scale evaluations provided by a relatively small community of practice – a single newsroom which, compared to others in South Africa,

remains a relatively large case and example. A national survey may have resulted in improved validity, but this would have required a significant departure from the ethnographic interest in the study of organisation that had originally motivated this research. Fortunately, the survey was designed in anticipation of this difficulty, taking into account key concerns with factorial analysis in (mainly behaviourist) psychology research that had motivated William Stephenson (1935; 1936; 1953; 1978) to devise Q-methodology. My having included a Q-sort in the questionnaire stands in line with the recent and current resurgence of interest in using this methodology in other fields such as in social and organisational research (Nicolini 1999). It is obvious that the method offers much to communication research, where Stephenson did most of his work. As Steven Brown writes in an obituary on Stephenson:

[I]n 1959 he... became distinguished professor of advertising research at the University of Missouri's School of Journalism. Although it is rarely cited by psychologists, his book *The Play Theory of Mass Communication* (1967) has been compared in its profundity with the works of Marshall McLuhan, Herbert Marcuse, and Jacques Ellul. Upon his formal retirement in 1972, Stephenson was honoured with a volume of essays entitled *Science, Psychology, and Communication* (Brown 1991: 244).

The Q-method analysis of journalists' responses to the statements drawn in the survey in this article shows a sincere appreciation most have of the mentorship they had received as newcomers to the practice. In the concourse from which these statements were drawn, the sources mentioned the sheer pressure of having to learn fast in the newsroom. Many recalled "doing the beats" during their early years; getting told what to do, and being told at least what they were doing wrong if not "doing right". In short, they first *participated legitimately on the periphery* of their community of practice. As each one progressed, he or she moved towards the centre of the community, taking on more demanding and responsible tasks. Together with each one's promotion up the order came an inevitable change in identity. Eventually, they too were to become mentors to the new generation of reporters in their midst. That, at least, was the tradition in which they had learned their craft. It is a pity that each one agreed this practice was a "thing of the past".

The conception of a journalistic learning community discussed above draws principally upon the *turn to practice* that has reconfigured much of social theory since the early 1990s (Schatzki, Knorr-Cetina & Von Savigny 2001; Schatzki 2002). It finds considerable congruence with similar studies of journalistic communities informed by discourse theory. This linkage is found in Sheridan Burns's (2004) paper, where we find an expression of *legitimate peripheral participation* in actuality. "When journalists engage in 'shop talk about a colleague's great story', they are actually critically reflecting on what makes that story so admirable," she writes, adding, with reference to Lave and Wenger (1991), the note that "this dialogue [is] a feature of the 'community of practice' to which journalists belong" (Sheridan Burns 2004: 6). In many respects

this resembles Anthea Garman's (2005) discussion of journalists as "interpretive communities"; as it does Barbie Zelizer's (1993) similar discussion.

About learning, Sheridan Burns's argument is one "based on the view that for active learning to promote life-long learning skills, students must develop, in a structured way, a process for understanding and evaluating what they do and why they do it in certain ways" (2004: 7). Taking *situational cognition* seriously, it is in journalism school as a community of practice that the neophyte begins, first peripherally, but eventually centrally, to develop the expertise in participation that makes life-long learning more than mere imitation. One may add to this an auto-poetic and anti-Cartesian twist: it is *the whole person* and not merely his or her intellectual faculties that learn the dispositions of a life in journalism (see Jarvis 2006).

Endnotes

¹ A number of South African journals can be counted among those that have contributed towards the development of local journalism education and training, and it may seem unwarranted to single out one above the others. However, the *Rhodes Journalism Review* must be recognised as having provided a sustained and dedicated attention to the matter of journalism education and training. That does not diminish contributions to the topic made by research published in other journals.

² Caldwell, M. 2009. *You are what you say: An ethnomethodological study of journalists in conversation at work*. Paper read at the South African Communication Association (SACOMM) Conference, Potchefstroom, South Africa, 16-18 September.

³ As a breakdown of the 42 respondents who completed the questionnaire, 15 were women and 27 were men. Their work experience in journalism ranged from eight years to 44 years. Other distinctions were: 14 entered their journalism careers having first attained a tertiary qualification in journalism, 16 had attained a different tertiary qualification (e.g., B.Sc, B.A.), six had not completed their tertiary studies, and six had a matriculation certificate only.

⁴ Caldwell, M. 2010. *Why newsrooms should retain their senior journalists: Mentoring through Legitimate Peripheral Participation*. Unpublished paper read at the World Journalism Education Conference, Grahamstown, South Africa, 5-7 July.

REFERENCES

- Adam, G.S. 1989. Journalism knowledge and journalism practice: The problems of curriculum and research in university schools of journalism. *Canadian journal of communication* 14(2): 70-79.
- Bowden, J. and Marton, F. 1998. *The university of learning*. London: Kogan Page.
- Breed, W. 1955. Social control in the newsroom: A functional analysis. *Social forces* 33: 326-35.
- Brown, S.R. 1980. *Political subjectivity: Applications of Q methodology in political science*. New Haven: Yale University Press.
- Brown, S.R. 1991. William Stephenson (1902-1989). *American psychologist* 46(3): 244.
- Brown, J.S. and Duguid, P. 1991. Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation. *Organization science* 2(1): 40-57.
- Brown, J.S. and Duguid, P. 2001. Knowledge and organization: A social-practice perspective. *Organization science* 12(2): 198-213.
- Brown, J.S., Collins, A. and Duguid, P. 1989. Situated cognition and the culture of learning. *Educational researcher* 18(1): 32-42.
- Buysse, V., Sparkman, K. and Wesley, P. 2003. Communities of practice: Connecting what we know with what we do. *Exceptional children* 69(3): 263-277.
- Caldwell, M. 2010. Why newsrooms should retain their senior journalists. *Loyola journal of social sciences* 24(2): 127-146.
- Cox, A. 2005. What are communities of practice? A comparative review of four seminal works. *Journal of information science* 31(6): 527-540.
- Cross, R.M. 2005. Exploring attitudes: The case of Q methodology. *Health education research* 20(2): 206-213.
- Danielson, S. 2009. Q method and surveys: Three ways to combine Q and R. *Field methods* 21(3): 219-237.
- Dennis, K. and Goldberg, A. 1996. Weight control self-efficacy types and transitions affect weight-loss outcomes in obese women. *Addictive behaviors* 21(1): 103-116.
- Deuze, M. (with Oliver Boyd-Barrett, J., Claassen, G., Diederichs, P., Eastman, S., Jordaan, D., Louw, E., Newsom, D., Quinn, S., Rabe, L., Steenveld, L., Stevenson, R., Van Rooyen, G., Wasserman, H. and Williams, J.). 2002. Comments on the Sanef media audit: A new news culture is facing the media and journalism educators: The time to act is now! *Ecquid Novi* 23(1): 87-151.
- Dewey, J. 1938. *Experience and education*. Indianapolis: Kappa Delta Pi.
- Dreyfus, H. 1992. *What computers still can't do: A critique of artificial reason*. Cambridge, MA.: MIT Press.

- Du Plessis, C., Angelopulo, G. and Du Plessis, D. 2006. A conceptual framework of corporate online communication: A marketing public relations (MPR) perspective. *Communicatio* 32(2): 241-263.
- Garman, A. 2005. Teaching journalism to produce interpretive communities rather than just professionals. *Ecquid Novi* 26(2): 199-211.
- Glasser, T. 2000. Play and the power of news. *Journalism* 1(1): 23-28.
- Goldman, I. 1999. Q methodology as process and context in interpretivism, communication, and psychoanalytic psychotherapy research. *The psychological record* 49(4): 589-604.
- Goldstein, D. and Goldstein, S. 2005. Q methodology study of a person in individual therapy. *Clinical case studies* 4(1): 40-56.
- Grosswiler, P. 1996. A Q-methodology study of media worker attitudes toward changing roles of the media in Tanzania. *Ecquid Novi* 17(1): 88-105.
- Henning, P. 2004. Everyday cognition and situated learning. In: Jonassen, D. (ed.). *Handbook for research in educational communications and technology*. (Second edition). Mahwah, NJ: Lawrence Erlbaum Associates.
- Huang, E., Davison, K., Shreve, S., Davis, T., Bettendorf, E. and Nair, A. 2006. Bridging newsrooms and classrooms: Preparing the next generation of journalists for converged media. *Journalism and communication monographs* 8(3): 221-261.
- Jarvis, P. 2006. *Towards a comprehensive theory of human learning*. London: Routledge.
- Joseph, B. 1999. From journalism school to newsroom: What rite of passage? *Asia Pacific media educator* 7: 74-85.
- Kitzinger, C. 1986. Introducing and developing Q as a feminist methodology: A study of accounts of lesbianism. In: Wilkinson, S. (ed.). *Feminist social psychology: Developing theory and practice*. London: Open University Press.
- Lave, J. 1988. *Cognition in practice: Mind, mathematics, and culture in everyday life*. Cambridge, NY: Cambridge University Press.
- Lave, J. 1993. The practice of learning. In: Chaiklin, S. and Lave, J. (eds). *Understanding practice: Perspectives on activity and context*. Cambridge, UK: Cambridge University Press.
- Lave, J. and Wenger, E. 1991. *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.
- Linehan, C. and McCarthy, J. 2001. Reviewing the community of practice metaphor: An analysis of control relations in a primary school classroom. *Mind, culture, and activity* 8(2): 129-47.
- Manstead, A.S.R. and Semin, G.R. 2001. Methodology in social psychology: Tools to test theories. In: Hewstone, M. and Stroebe, W. (eds). *Introduction to social psychology*. (Third edition). Oxford: Blackwell.

- Mclver, J.P. and Carmines, E.G. 1981. *Uni-dimensional Scaling*. Newbury Park, CA: Sage.
- McKeown, B. and Thomas, D. 1988. *Q Methodology*. Newbury Park, CA: Sage.
- Miller, A. 2002. *Mentoring students and young people: A handbook of effective practice*. London: Kogan Page.
- Nicolini, D. 1999. Comparing methods for mapping organizational cognition. *Organization studies* 20(5): 833-860.
- Örnebring, H. 2008. *The two professionalism of journalism: Updating journalism research for the 21st century*. Paper read at the annual meeting of the International Communication Association, TBA, Montreal, Quebec, Canada, May 22.
- Previte, J., Pini, B. and Haslam-McKenzie, F. 2007. Q methodology and rural research. *Sociologia Ruralis* 47(2): 135-147.
- Robbins, P. and Krueger, R. 2000. Beyond bias? The promise and limits of Q method in human geography. *The professional geographer* 52(4): 636-648.
- Ryle, G. 1949. *The concept of mind*. London: Hutchinson.
- Schatzki, T. 2002. *The site of the social*. University Park: Pennsylvania University Press.
- Schatzki, T., Knorr-Cetina, K. and Von Savigny, E. (eds). 2001. *The practice turn in contemporary theory*. London: Routledge.
- Schenkein, J. (ed.). 1978. *Studies in the organization of conversational interaction*. New York: Academic Press.
- Self, C. 1996. Credibility. In: Michael Salwen, M. and Stacks, D. (eds). *An integrated approach to communication theory and research*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Senge, P. 1990. *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday.
- Sheridan Burns, L. 2004. A reflective approach to teaching journalism. *Art, design & communication in higher education* 3(1): 5-16.
- Singer, J., Craig, D., Allen, C., Whitehouse, V., Dimitrova, A. and Sander, K. 1996. Attitudes of professors and students about new media technology. *Journalism and mass communication educator* 51(2): 36-45.
- Sloan, W.D. (ed.). 1990. *Makers of the media mind: Journalism educators and their ideas*. Hillsdale: Lawrence Erlbaum Associates.
- Stephen, T. 1985. Q-Methodology in communication science: An introduction. *Communication quarterly* 33(3): 193-208.
- Stephenson, W. 1935. Technique of factor analysis. *Nature* 136: 297.
- Stephenson, W. 1936. The inverted factor technique. *British journal of psychology* 26: 344-361.

- Stephenson, W. 1953. *The study of behaviour: Q-technique and its methodology*. Chicago: University of Chicago Press.
- Stephenson, W. 1978. Concourse theory of communication. *Communication* 3: 21-40.
- Suchman, L. 1988. Representing practice in cognitive science. *Human studies* 11 (2/3): 305-25.
- Tatum, C. 2000. The media as teacher: Helping advisers, mentoring young journalists. *New directions for community colleges* 110: 67-72.
- Vygotsky, L.S. 1978. *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wasserman, H. 2005. Journalism education as transformative praxis. *Ecquid Novi* 26(2): 159-74.
- Watts, S. and Stenner, P. 2005. Doing Q methodology: Theory, method and interpretation. *Qualitative research in psychology* 2: 67-91.
- Wenger, E. 1998. *Communities of practice: Learning, meaning, and identity*. Cambridge, NY: Cambridge University Press.
- Wenger, E., McDermott, R. and Snyder, W. 2002. *Cultivating communities of practice*. Boston: Harvard Business Press.
- Wesley, P.W. and Buysse, V. 2001. Communities of practice: Expanding professional roles to promote reflection and shared inquiry. *Topics in early childhood special education* 21(2): 114-123.
- Westwood, D. and Griffiths, M.D. 2010. The role of structural characteristics in video-game play motivation: A Q-methodology study. *CyberPsychology, behavior & social networking* 13(5): 581-585.
- Witschge, T. and Nygren, G. 2009. Journalism: A profession under pressure? *Journal of media business studies* 6(1): 37-59.
- Wittenborn, J. 1961. Contributions and current status of Q methodology. *Psychological bulletin* 58(2): 132-142.
- Zelizer, B. 1993. Journalists as interpretive communities. *Critical studies in mass communication* 10(3): 219-237.