
What really matters: aspects of pedagogy linked to access to and achievement in specialised knowledge for learners in differing social class contexts

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Abstract

What do high levels of learner achievement at school signify, if not access to and successful participation in, specialised knowledge? A battery of predominantly Portuguese studies has shown the association of specific pedagogic features with high learner achievement in primary- and intermediate-level school science, and that these pedagogic features differ slightly for learners in different social class contexts. This article draws on some of the findings of a detailed investigation into pedagogy and achievement patterns in art – a knowledge form differing in structure to that comprising science – in the final year of secondary school in South Africa. The message in the article relates to the importance of particular pedagogic features for access to and achievement in, specialised art knowledge, for learners in widely differing social class contexts. These pedagogic features appear to play a significant role in learners' success, regardless of the knowledge form to which they are applied. Further, it appears that teachers can control the features in order to apply them differently in differing contexts.

Introduction

The need to improve current levels of learner performance in South African schools is widely recognised. In the debate on the relative significance of social context and pedagogy for educational success, the effects of social context on learner achievement are generally acknowledged. Further, of the range of contextual features investigated, the social class of learners has frequently been identified as the aspect most strongly linked to differences in learner achievement (Coleman, 1966; Connell, 1974; Domingos, 1989; Morais, Fontinhas and Neves, 1992 and Morais, Neves, Antunes, Fontinhas, Medeiros and Peneda, 1995; Bolton, 2005, and others).

Mechanisms affecting the chances of learners with differing social class origins are less clear. The concept of pedagogic code developed by British

sociologist Basil Bernstein (1971; 1975; 1981; 1990; 1995; 1996) has proved useful as an explanatory tool for analysing what it is that influences these chances. Importantly, there is recognition of the differential performance of socially similar schools as aptly expressed in the following: “. . .schools should not be judged according to raw scores. . .but according to the value they add relative to their socio-economic circumstances ...” (Taylor, Muller and Vinjevold, 2003, p.66).

A battery of Portuguese studies using Bernstein’s concepts of pedagogic code, classification, and framing focuses on pedagogy associated with this differential achievement. The studies show the association of specific pedagogic features with high learner achievement in primary- and intermediate-level school science, and that these pedagogic features differ slightly for learners in different social class contexts (Morais *et al.*, 1992 and 1995; Morais and Camara, 1997; Morais and Neves, 1997; Morais and Rocha, 1997; Morais, 1998; Ferreira and Morais, 2008).

The study on which the current article reports sought to ascertain whether the pedagogic features associated with achievement in science – a vertical discourse with a hierarchical knowledge structure (Bernstein, 1996) – are also linked to success in art, a horizontal knowledge structure with weak grammar (*Ibid.*). Achievement in art was investigated at matric (final year of secondary school) level – the only stage at which the potential subjectivity of assessments is held in check by independent external examination by small groups of teachers.

This article briefly outlines how data on pedagogy were obtained and analysed in the larger study on which it reports. It focuses on the pedagogic features shown to be linked to success in both the South African art study and the Portuguese science studies, and on other features necessary to facilitate the use of these key aspects when implementing curricula.

Theoretical bases

Three areas are theorized in the larger study on which this article reports: pedagogy; the demographic features of gender, race and social class; and achievement in art (Bolton, 2005 and 2007). The theoretical frames are used deliberately to extend understanding beyond that afforded by individual experience; the two relevant to this article are sketched briefly here.

The body of research on which the study attempts to build utilises Bernstein's theory of pedagogy, in which power and control are theorised at high levels of abstraction and can be used to link macro and micro levels of analysis. It was possible to use the same basic categories used in the science studies by re-categorising sub-categories in art-specific ways in the current investigation.

There is insufficient space to detail conceptualisations of race, class, and gender theorised in the larger study of which this article is a part. Since significant differences were found between the art achievements of Grade 12 learners differing according to particular aspects of social class, and relatively small differences relating to their gender and race categorisations, (Bolton, 2005) the conceptualisation of social class is mentioned briefly.

Acknowledging the complexity of the concept of class boundaries, the study selected Wright's (1997) relational typology of 'locations within class relations'. Here, social groups are seen in relation to each other and to different dimensions of inequality. This approach has great potential explanatory power with respect to inequality: it theorises specific advantages that some learners may have. It also acknowledges the need to reflect the 'shared values' implicit in neo-Weberian frameworks as well as the 'conflicting values' of the neo-Marxist paradigm – and incorporates gradations within the relational categories.

In Wright's (1997) typology of locations within class relations, individuals are either owners ('employers') or employees. Owners are categorised on the basis of the numbers of their employees. Employees are divided into nine categories; a grid is created using skill types and levels (semi-skilled, skilled and expert); and second, positions in authority hierarchies (worker, supervisor, manager). Findings showed that Grade 12 learners' mean art grades were not affected by having parents or care-givers categorised as employers or employees, or being in differing positions in the authority hierarchy. (Bolton, 2005). In contrast, the skill types and levels of employee parents (or caregivers) were found to be broadly associated with learners' art grades. Briefly then, the mean grade of learners with parents (or caregivers) with university degrees was found to be higher than that of those with lower levels of academic education or vocational qualifications.

Bernstein's theory of pedagogy

As Muller and Gamble (2009) rightly assert, for Bernstein, “the basic unit of socio-educational analysis is not the individual but the communicative relation and its control”. Bernstein's theory of pedagogic (communicative) codes was used in the current study to investigate relations between macro-level features such as social class, pedagogy (the relay), and the micro-level achievements of individual learners. It made possible the linking of empirical evidence and theoretical concepts, and explanation of how power and control translate into communication (Muller and Gamble, 2009). Analysis in the current study was built on the idea that school pedagogic communications comprise differing modalities of elaborated codes (Bernstein, 1995).

Bernstein (1995) developed specialised concepts for use in distinguishing modalities of elaborated code, those of *classification* and *framing*. Classification denotes the degree of specialisation of categories or separation between categories, and generates recognition rules “whereby a context is distinguished . . . in relation to other contexts” (Muller and Gamble, 2009). When classification is ‘strong’, categories will have clearly distinguishable identities and specialised rules of internal relations. When it is ‘weak’, categories will be less easily distinguishable with less specialised internal relations (Bernstein, 1995).

Framing comprises control of pedagogic communications. According to Bernstein (1996, pp.27–28), framing regulates both the “rules of the social order” (rules relating to “conduct, character, and manner”; the extent of the hierarchical relation between the teacher and learners), and “the rules of the discursive order” (rules relating to specialised knowledge to be transmitted and acquired). Framing refers to the selection and sequencing of the content of the communications; pacing, and “evaluation criteria” by means of which learners' texts (any aspects attracting evaluation) are evaluated (*Ibid.*). With strong framing, the transmitter has explicit control over these aspects; with weak framing, the acquirer has more apparent control.

Earlier criticisms of the apparent determinism of the concepts (Harker and May, 1993) have been refuted by the many findings relating to differing realisations of elaborated codes (Morais *et al.*, 1995). For Bernstein, the codes were mechanisms of social production and also carried possibilities for change (Bernstein, 1990). The current study following the Portuguese studies, suggests that teachers could be taught to vary aspects of pedagogy at will; it

provides some thoughts as to possible mechanisms for this variation. The view is put forward that teachers (transmitters) can *selectively realise* differing pedagogic codes: they are not confined to any particular codes.

Pedagogy associated with learner success in science

Several studies use Bernstein's (1996) concepts of classification and framing to describe pedagogy at the level of the school (Daniels, 1988; 1989; 1995; Sadovnik and Semel, 2000), and the relation between pedagogy, social context, and learners' orientation to meaning (Daniels, 1989; Hoadley, 2005), and outcomes (Daniels, 1995; Sadovnik and Semel, 2000). Most relevant for the current research however is the cluster of Portuguese studies which consider learners' complex cognitive competences in science in relation to their socio-economic status, race, and gender, and pedagogy at the level of individual classrooms (Domingos, 1987; Morais *et al.*, 1992 and 1995; Morais and Camara, 1997; Morais and Neves, 1997; Morais and Rocha, 1997; Morais, 1998; Ferreira and Morais, 2008).

In these studies classification and framing values are assigned to comprehensive ranges of components of pedagogic practice (pedagogic features) (Bolton, 2005). In a cluster of science studies over time, five differing but particular pedagogic practices were taught to practicing teachers; the resulting pedagogy was observed and monitored and learners' associated performance relating to specific cognitive competences in science was analysed. Results of these studies show that specific pedagogic features are linked to high learner performance in science by learners in general, and disadvantaged learners in particular.

The science studies however focused on science lessons at intermediate and lower school levels only (Morais, 1998). Further, there are few studies detailing *how* classification and framing values have been or could be weakened or strengthened (Morais *et al.*, 1992 and 1995; Morais and Miranda, 1996; Hoadley, 2005; Reeves, 2005; Ferreira and Morais, 2008). There is a need for further study of relations between pedagogy and learners' achievement in other school subjects, where learners' social contexts form an integral part of the analyses. The current study attempts to address these gaps.

Questions for the current study

Taking into account the need to improve learner performance in South Africa, the role potentially played by pedagogy in this performance, and the need for research into subjects other than science, the research question here is:

What, if any, are the specific pedagogic features associated with achievement in matric art by learners in general, and disadvantaged learners in particular?

In order to ascertain whether specific pedagogic features were associated with high levels of achievement in art, and if so, whether these features were similar to those linked with success in science, a two-part design was needed. One part involved a survey of 752 matric art learners for gathering information on their final art grades, and social class, race, and gender. Since social class, and within that the education and training types and levels of learners' parents were found to be the factors most closely associated with learners' achievement patterns – the sample of school classes selected for detailed study was chosen according to these aspects (Bolton, 2005, pp.76–83).

The second component of the study comprised a multiple case study for detailed exploration of pedagogy in *six* school classes. Two school classes were selected at each of what were defined as upper middle-class, lower middle-class, and working class social class levels (*Ibid.*, pp.84–85).

This article goes on to discuss the set of specific pedagogic features found to be associated with high levels of performance in both art and science by learners in general, and disadvantaged learners in particular. It starts by sketching how two of the most important features in the set were analysed and coded.

Describing pedagogic features

Data on pedagogy was gathered in the six selected school classes, via at least 30 hours of classroom observation for each school class. During these periods all teacher-learner dialogue was recorded and transcribed; detailed notes were made to capture non-verbal detail; and interviews were conducted to obtain additional information.

Using Bernstein-based theoretical categories denoting power and control enabled comparison of pedagogy in the art classes to that in the science classes already studied, without constraining description of the categories in art-specific ways.

After much to-ing and fro-ing between the theory and data to develop an “external language of description” from the “internal language of the theory” (Bernstein, 1996, p.135), observed pedagogy was categorised in terms of 27 pedagogic features (see Table 1). Two of the features were found to be key for success in art for all learners – *regulative mode* and *elaboration of evaluation criteria* – and they are elaborated in the remainder of the article.

Table 1: Categories used for analysis of pedagogy

Power Relations
<p>CLASSIFICATION OF DISCOURSES</p> <p>Classification between ‘consecrated’ and ‘unconsecrated’ art discourses, as seen in</p> <p>1a. classroom displays 1b. stored visuals 1c. references to consecrated art 1d. gallery exposure 1e. art history</p> <p>Classification between styles or ‘languages’ within ‘consecrated’ art, as seen in</p> <p>2. art ‘languages’</p>
<p>CLASSIFICATION OF SPACE</p> <p>3a. teacher-learner space 3b. length of individual teacher-learner interactions 4a. learner-learner space 4b. learner-learner materials</p>
<p>CLASSIFICATION OF AGENTS</p> <p>5. differentiation between learners</p>

Control Relations
<p>FRAMING OF REGULATIVE DISCOURSE</p> <p>6a. entry to/exit from the classroom 6b. control of communication 6c. regulative mode 6d. initiation of teacher-learner dialogue 6e. control of work focus 6f. balance of sound</p>
<p>FRAMING OF INSTRUCTIONAL DISCOURSE</p> <p>7a. macro selection (of projects/processes to be carried out) 7b. micro selection (of components within projects/processes) 7c. micro selection (of sources of reference) 8a. macro sequencing (of projects/processes to be carried out) 8b. micro sequencing (of projects/processes to be carried out) 9a. macro pacing (of projects/processes to be carried out) 9b. micro pacing (of projects/processes to be carried out) 10a. explication of evaluation criteria via extension of learner selection 10b. explication of evaluation criteria via elaboration of criteria</p>
<p>ADDITIONAL CLASSIFICATORY FEATURE</p> <p>11. level of instructional content</p>

Regulative mode

Regulative discourse was encountered in relation to learners' entry to and exit from classrooms (the start and finish of lessons); control of the type and length of communications in the classroom; initiation of teacher-learner dialogue; control of the degree to which learners focused on work or on social interaction unrelated to work, and overall mode of control; during practical lessons. Since the overall regulative mode was found to be key for success, it is the feature detailed here.

In order to describe what was perceived as the *mode of regulative control*, or the *overall way* in which teachers framed their communications with learners, the concepts of 'inter-personal', 'positional' and 'imperative' are used (Bernstein, 1971; Pedro, 1981; Morais and Neves, 1997; Morais, 2002a, Gamble and Hoadley, 2008). As elaborated by Gamble and Hoadley, imperative communications allow no options and give no reasons. Imperative control involves verbal or non-verbal commands or threats: hierarchical relations are explicit. Positional communications provide reasons based on rules linked to particular social categories. They involve the stating or

elaboration of rules, while personal control focuses on controller and controlled as *individuals* – hierarchical relations are masked. Personal communications refer to the personal consequences of individual actions. The framing of regulative discourse is characterised as weak when the teacher does not indicate norms of social conduct previously established, leaving these implicit, and using personal appeals when students transgress the limits of the norms. When using inter-personal appeals the teacher asks students for reasons for their conduct and shows them advantages and otherwise, of their attitudes. Framing of regulative control is categorised as strong when teachers address transgressions with positional or imperative communications.

In the analysis of data in the current study it was found that the extent to which norms were explicated in observed classroom discourse was not necessarily linked to particular types of (inter-personal or positional) communications. Further, differing types of norms were observed – some, such as “stand up straight when you are talking to me!” drew on social status; others, like “we hold the brush like this when we use this paint”, related to art-specific norms. In other words, differing kinds of positional communications were observed: one being those issued from the position of secondary school teacher (with status by virtue of the role in the school system); the other being those of a specialised fine-art teacher (with authority by virtue of the possession of specialised knowledge).

The unit of analysis in the present study was the teacher-learner interaction, a single interaction being the sum of all teacher-learner communications (with individuals or groups) until the teacher moved to subsequent learners. Interactions were scanned for presence and type of norms, types of learner transgression, and teacher responses to learners’ transgressions. Norms and learner ‘transgressions’ were categorized as implicit, or explicit art- or social-conduct norms. Teacher responses to learner transgressions were characterised as ‘inter-personal/art-positional’ (‘respectful’), ‘social-positional/imperative’(‘authoritarian’) and ‘mixed’. The following extracts are examples of observed regulative communications: categorisations are placed in square brackets. In the first, the teacher addresses a learner working with pencils deemed too hard.

T: You still need your 6B pencils – it’s basically all coming out silver now
CML:¹ (nods)

¹ CML: Coloured male learner; CFL: Coloured female learner; WML: White male learner, etc

T: You still need to use your 6B to get your dark colours [*art norm, art positional comment*]

In the following excerpt a learner trying to complete a drawing after the teacher had called for all work to be submitted for marking, was addressed.

T: (to a learner after having said that work was due) Okay, what're you doing now Rick?

CML: (indistinct)

T: You give it in as it is. It's time now, if you don't come to school, that's your problem [*social norm, social-positional comment*]

The following comment was addressed to a learner socialising rather than working.

T: (to a learner not working after the start of a lesson) At the back there, can you please get some work done now? [*inter-personal comment*] Put your bag on the floor and get going [*norm implicit; imperative comment*]

In summary, regulative mode is essentially about the degree to which teachers adopt the role of 'teacher' and focus on personal social conduct, general social norms, and imperative communications, as opposed to taking on the role of 'art facilitator' and focusing on art-related conduct, art norms and inter-personal/art-positional communications. With strong framing (F+) of regulative mode, more teachers' comments address general social conduct with social-positional and imperative communications than specifically art-related conduct. With weak framing (F-) of regulative mode, more teachers' comments address art-related conduct with implicit, inter-personal or art-positional communications than address general social conduct. Framing of the pedagogic feature *regulative mode* is thus described as follows.

F + + Personal and social conduct is emphasised with social-positional and imperative communications;

Less than a quarter of interactions feature implicit or explicated art conduct norms together with inter-personal or art-positional teacher responses to learner transgressions.

F + Personal and social conduct is emphasised with social-positional and imperative communications;

Quarter to half of interactions feature implicit or explicated art conduct norms together with inter-personal or art-positional teacher responses to learner transgressions.

- F -** Art-conduct is emphasised;
Half to three quarters of interactions feature implicit or explicated art conduct norms together with inter-personal or art- positional teacher responses to learner transgressions.
- F - -** Art-conduct is emphasised;
Over three quarters of interactions feature implicit or explicated art conduct norms together with inter-personal or art- positional teacher responses to learner transgressions.

Instructional (work-related) discourse is defined in terms of the selection, sequencing and pacing of content and skills, and the degree to which evaluation criteria are made explicit (Bolton, 2005). The second pedagogic feature outlined in this article comprises the elaboration of evaluation criteria.

Elaboration of evaluation criteria

The explication of evaluation criteria has been found to be the most important pedagogic feature for success in science (Morais *et al.*, 1992 and 1995). In the current study, the extent to which criteria were elaborated was considered in judgements voiced or shown by teachers to individuals, groups of learners, or the whole class, as the teachers moved around the classroom giving feedback to learners as they worked. Criteria are said to be rendered distinct through change in content or individuals with whom criteria are being discussed. Since the idea is to show degrees of elaboration of criteria, a continuum of clarity is needed.

Criteria are said to be ‘clear’ when presented as specific routes of progression or articulations of ideas by the teacher. The critical feature for defining clarity is the narrowness of options presented to learners: in clear evaluations the teacher presents relatively specific options within which learners are bounded and isolated from possibilities external to this. Criteria are said to be ‘unclear’ when learners can potentially make multiple interpretations.

It is argued that various conditions narrow the possibilities of interpretation by learners and serve to clarify criteria, four of which have been found in the data for the current study and are delineated below.

- Criteria are made clearest when specific principles or features to be evaluated *and* specialised behaviours are explained to learners *together with* the showing of (in this case visual) examples *in the forms required*. Specific features to be evaluated, art-specific conduct and visual examples are indicated in square brackets in the following extract.

T: ... what's wrong with this [sketch on blackboard showing overlapping outlines of objects]?

CML: You can see the objects

CML2: It's overlapping

T: ... What's in front there? ... Is anyone gonna argue with me ... the bone's in front, isn't it?

CFL: Yes

CML3: Ja

T: And the chair shape's behind. ... Why does the mind tell you that?

CFL2: Because the bone's on top of the chair

T: How d'you know it's on top – it's not, it's chalk on board ... It's overlapping

T: ... It overlaps ... Whenever it overlaps it's obvious: this thing's in front of that thing ... Your mind tells you because of overlapping ... You must confuse the viewer – [as to] what's in front and what's not [*specific art-conduct*]. If you do this [alters sketch on board, removing lines that provide the illusion that one object is in front of the other] [*visual example in the form required*] you have no idea, you wouldn't know ... what's in front, what's behind. Broken shapes, broken lines ... Play with that ... [*specific art-conduct*]

- If teachers and learners *share* visual models, a second way in which criteria are made explicit in art lessons is through teachers' mention of specific principles or features to be evaluated *or* art-specific conduct, *without* visual examples.
- A third way in which criteria are clearly articulated is when approval is qualified: instead of saying 'good work' or merely awarding a grade for example, teachers specify comments like 'interesting mark-making', 'lovely colours'.
- Lastly, a requirement for conceptual content is made clear when ideas are discussed verbally, as in the following excerpt in which learners were required to make visual commentary on a public sculpture of their choice.

CFL: I found something [subject matter content] ... It's that lady on top of the fountain. . .

- CFL2:** She's standing on top of the fountain that was erected by Howard something – dedicated to something. She's serene and like very calm and stuff.
- CFL:** So I was thinking that, with like a very destructive and grotesque background.
- T:** The background being here in the Gardens.
- CFL3:** I don't know where you get destructive and grotesque in the gardens
- T:** No no no – you could do her in front of the school and you could let the school degenerate into this graffiti-spoilt gang-ridden –

Conversely, unqualified or partially qualified approval such as 'that works well', leaves criteria open to interpretation. Second, when conduct-related comments such as 'play around with shading and texture' and 'get the image to balance' are procedural rather than referring to specific principles, they are also likely to be interpreted in any number of ways. Also unclear are judgments giving principles without specific recommendations for conduct or (in this instance visual) examples, and visual examples without mention of specific features to be understood.

Framing values for elaboration of evaluation criteria are based on percentage counts of teacher-learner interactions containing one or more clear teacher judgements.

- F + +** over three quarters of interactions give learners clear judgements
- F +** half to three quarters of interactions give learners clear judgements
- F -** quarter to half of interactions give learners clear judgements
- F - -** under a quarter of interactions give learners clear judgements

Relations between specific pedagogic features, the social class of learners, and high levels of achievement

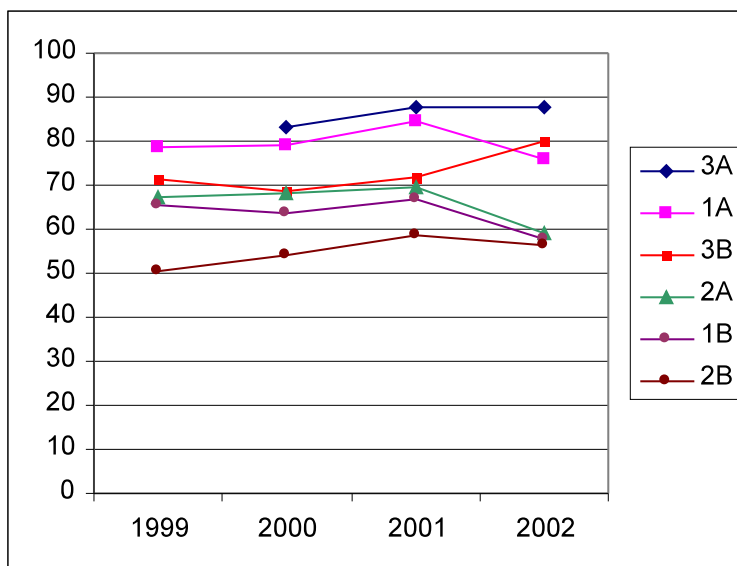
In order to compare pedagogy across the six school classes, their suitability for statistical comparison was ascertained (Bolton, 2005). Since teachers were selected on the basis of patterns in their learners' social class and percentage grades in the first year of the study, analysis was required to ascertain whether patterns within and between school classes remained constant over the three remaining years of the research. Kruskal Wallis tests showed that learners' average percentage grades and the spread of grades were similar within, and different between, the classes of particular teachers over the four years of the

study (*Ibid.*). Since these patterns were constant, it was possible to consider whatever it was that was enduring.

If social class was the feature preserving the similarities within and contrasts between school classes, it would be expected that achievement would run in accordance with privilege. That this pattern was not the case in the detailed case studies suggested two possibilities. Either the relationship between social class and achievement shown in the survey was invalid, or an additional feature such as pedagogic practice was intervening to preserve the patterns. Since achievement was patterned along social class lines in the larger sample of 752 learners, the significance of pedagogy was suggested. It is argued that if pedagogies associated with high-achieving learners differing in social class were found to be similar to each other and different from those experienced by low-achieving school classes, then a feature or features consistently associated with achievement patterns would have been identified.

Further, to contextualise learner achievements associated with each teacher, it was important to consider the achievements of each of the school classes in the sample in relation to all others in the sample, regardless of social class. Ranking the teachers according to the average grades and spread of grades of the school classes showed patterns sufficiently consistent to warrant investigation of pedagogic features as intervening variables associated with achievement (see Figure 1).

Figure 1: Average percentage grades for the six school classes in the study over four years



Key:

3A = school class of learners with high social class

3B = school class of learners with high social class

2A = school class of learners with medium social class

2B = school class of learners with medium social class

1A = school class of learners with low social class

1B = school class of learners with low social class

Relations between specific pedagogic features, and learners' social class and achievement were investigated using conceptually ordered matrices. (Bolton, 2005). Briefly, by entering each pedagogic feature (numbered 1–27) in a separate column, and learners' social class (high, middling, or low) and achievement (high or low) levels in rows, it was possible to identify patterns in the classification and framing of features in a systematic way by looking for:

- Pedagogic features similar within all high-achieving school classes and differing between high- and low-achieving classes;
- Pedagogic features similar within yet differing between the 'high', 'middling' and 'low' social class groups;
- Pedagogic features varying with social class within the high-achieving group of school classes; and
- Pedagogic features varying across high- and low-achieving groups within the social class groups.

Patterns found clearly showed the association of specific pedagogic features with success for particular groups of learners.

Specific pedagogic features linked to success

It is known that apart from teachers' levels of disciplinary knowledge and skill (which need to be high), certain pedagogic features are key for the transfer and learner acquisition of these complex cognitive competences in science (Morais *et al.*, 1995; Morais and Pires, 2002). It was found that despite the differences in knowledge area and school level, almost all of these features were also associated with the acquisition of complex art skills.

Pedagogic features linked to success in art for all learners

Achievement of high percentage grades in art by *all* learners is linked to high levels of conceptual demand and explication of shared criteria, and pedagogic features facilitating the latter. Interestingly, high levels of conceptual demand, although associated with high levels of achievement in both art and science, are on their own insufficient for high achievement.

Explication of evaluation criteria in art occurred in two ways. First, teachers extended learners' selections, verbally or visually or both. Verbal extension in this instance constituted teachers' engagement with learners' ideas and/or visual productions, in all cases involving suggestions beyond those which learners had themselves conceived or created. Visual extension similarly involved teacher-guided development of learners' productions, through the showing of examples by demonstration or from the history of art and other 'consecrated' sources. Second, teachers explicated criteria through elaboration, explaining and correcting aspects of learners' productions, verbally or with visual demonstration when required. Explication appeared to narrow the possibilities for multiple (and possibly incorrect) interpretations by learners, and to increase the potential for their engagement with, and interrogation of, specialised knowledge.

Five pedagogic features that enhanced explication of evaluation criteria were identified in the study, mirroring the science findings (Morais *et al.*, 1992 and 1995; Morais and Pires, 2002). The first comprised continual and extended exposure to – immersion in – specialised discourse. In other words, there was strong classification of discourses, but not without mediation. This exposure included provision of exemplars of 'consecrated' art primarily through continuous classroom displays and critique of work done either by high-achieving past learners, the teachers themselves, or respected practitioners in the field. It was also achieved through tight teacher control of the selection of projects and sources of reference (strong framing of key aspects of selection). Teacher selection of categories of themes and sources of reference showed learners the way and narrowed the possibilities of multiple interpretation.

Explication of sought-after criteria was also furthered by *respectful* (as opposed to *authoritarian*) teacher-learner communication relations. When communication was respectful, it appears that teachers were able to interrogate and shape learners' ideas and productions. If teachers are to help learners to build on their initial ideas, learners need to make substantial contributions to

the dialogue. Dialogue depends on learners' abilities to contribute, and teachers' abilities to understand and extend these beginnings. It appears that social-positional regulative modes stalled this process, while art-positional (specialised-positional) communications furthered it.

A third feature that contributed to the explication of evaluation criteria is weak classification of teacher-learner spaces, where teachers spend most lesson time amongst learners. Importantly, teachers did not only inhabit this space physically; they interacted continually with learners. This interaction appears to facilitate discussion of ideas and thereby elaboration of evaluation criteria.

A fourth set of pedagogic features relates to the sequencing and pacing of content and skills which are described as together comprising the *sizes of steps* learners need to take in order to progress from existing to higher levels of knowledge. In school classes achieving at high levels, learners were guided to differing degrees in their exploration of metaphors and inter-relation of these with technical elements, in complex art projects. Such processes are seldom stumbled upon through use of common-sense. Facilitation of the processes appeared to depend on teachers' knowledge of them, and teachers' extension of learners' ideas and creations through dialogue and the showing of visual examples. It is argued that sequencing and pacing *together* create the sizes of 'steps' learners are required to take in order to realise sought-after criteria. The two features are discussed briefly.

The weak micro (within-project) sequencing associated with achievement in intermediate science (Morais *et al.*, 1995) is not mirrored in matric art teaching. Instead, there was strong micro-sequencing, or strong sequencing of the stages within projects, in all observed classes. It is argued that strong micro-sequencing is necessary in the teaching of art – and possibly science – at Grade 12 level, since mastery of both complex concepts and processes is required. A process for finding material form for visual metaphors is required for example, and consists of several sub-processes, each of which must be followed. Sub-processes could include researching potential imagery, developing personalised imagery from researched images, finding the technical means to realise personalised imagery, and aesthetically manipulating material forms – none of which can be executed successfully without following the process prior to it in this list. It appeared that distances or 'steps' between sub-processes were too large if some of these sub-stages were missing.

Further, there is a sense in which teacher-learner dialogue, when actively opened by teachers and contributed to by learners, *constitutes* micro-steps within sub-processes. It appears that in the absence of open dialogue, the distances between sub-processes can be too large. There are parallel notions in the literature on art teaching: where teachers “scaffold” learners’ making of new connections through conversation (Elfland, 2004, pp.771-2); “co-construct” learners’ thinking (Eisner, 2002, p.47); “negotiate” understanding (Barrett, 1990, p.302) or act as “discourse leaders” or “connection forgers” according to individuals’ needs (Mitchell, 1996). It is argued that open dialogue serves to assist what Muller (2000) refers to as negotiating the crossing of the boundary between everyday and esoteric knowledge.

A fifth and final pedagogic feature consistently associated with high levels of success by all learners comprises weak framing (learner-control) of the selection of components within projects. While teachers selected the *sources of reference* and principles to be followed in high-achieving art classes, it appeared that learners often selected less important aspects, such as subject matter and materials to be used. It appeared that this learner selection increased learners’ work-involvement.

High levels of conceptual demand and highly elaborated evaluation criteria, together with the pedagogic features through which they were elaborated, were linked to success for all learners. Nevertheless, some pedagogic features differed across high-achieving school classes in differing social contexts.

Pedagogic features linked to high achievement for particular social class groups

Two pedagogic features differed along social class lines across high-achieving art classes. The first of these was the degree to which teachers differentiated between learners (classification of learners), which increased with an increase in social class. In observed upper-middle class contexts teachers usually dialogued with *individual* learners; in lower social class contexts individuals spontaneously contributed so that communications were built *collectively* rather than between teachers and single learners. It is argued that this collectivity increased the openness of communication relations in situations where they might not otherwise have been as open, thereby facilitating elaboration of sought-after criteria.

Another difference between the high-achieving school classes was the ‘instructional-regulative package’ in each. In all of the high-achieving classrooms, irrespective of social class context, high levels of conceptual demand and the explication of evaluation criteria were observed. The five sets of pedagogic features appearing to facilitate elaboration of criteria were present. In the high-achieving school classes with high and middling social class however, these features were coupled with strong (whole-class, fast) pacing; strong differentiation of learners (individual engagement with learners); and strong teacher-control of work-focus and sound. The atmosphere in these classrooms could be described as ‘businesslike’.

In the high-achieving *lower* middle class classroom in contrast, pacing; classification of learners; and teacher-control of work-focus, movement and sound levels were relatively weak: the character of lessons could be described as ‘relaxed’. Learners frequently approached the teacher and initiated work- and non-work related dialogue, to all of which the teacher responded generously.

Worth noting is that these ‘businesslike’ or ‘relaxed’ approaches never militated against the operation of *respectful* or ‘collegial’ modes of interaction with respect to the discussion of work, or against the explication of evaluation criteria. It would benefit learners if teachers could learn to adapt their realisations of these features in relation to the social contexts of the taught.

Pedagogic features varying with social class irrespective of achievement levels

Some pedagogic features varied with social class irrespective of levels of achievement. These features included decreasing exposure to ‘consecrated’ discourses with decrease in social class. They also comprised time- and resource-based differences: the higher the social class, the faster the pace, and the greater the amounts and sophistication of resources available. Classification of *learner-learner* spaces weakened with decrease in social class: the greater the shortage of materials, the more learners moved into each other’s spaces to share.

It is worth noting that while learners in highly resourced contexts appeared to produce greater volumes of work, and to use more sophisticated materials and art vocabulary than those in less advantaged contexts, both sets of high-

achieving learners could be said to have engaged with complex art principles at roughly comparative levels. The lesson here is the importance of teacher-focus on specialised knowledge and pedagogic features known to promote access to this knowledge.

Re-iterating differences in pedagogy linked to success in art and science

It has been argued that pedagogy linked to success in art at Grade 12 level is similar to that associated with achievement in science at primary and intermediate levels, with two notable differences. The first difference related to micro-level selection, or, selection at the level of the everyday lesson. Intermediate science learners in high-achieving school classes were given some control with respect to “. . .selection of examples, materials, and various aspects related to the investigative process. . .” (Morais *et al.*, 1995, p.13). It is not known whether this control would be allowed in science at the level of senior secondary school. However, while learners in highly successful art classes may have had some control with respect to selection of materials, media, and interpretation of topics, teachers consistently maintained very tight control over sources of reference.

The second difference related to micro-level sequencing. In pedagogy linked to high achievement in science by learners in low social class contexts, learners were given some control of “. . .the micro sequences which occurred during the activities. . . .student interventions altered the sequence of some topics. . .” (*Ibid.*: p.14). Again, it is not known whether this sequencing would change at senior secondary level. It has been shown that in successful art classes, micro-level sequencing was highly teacher controlled. Learners followed teacher-set sequences as they carried out projects, and reported back to teachers at each step of the way for advice and feedback.

These differences could relate to differences between art and science as forms of knowledge, as much as they could relate to the fact that pedagogy was considered at differing school levels.

Concluding comments

In summary, the achievement of high percentage grades in art appears to be associated with specific pedagogic features. These features include high levels of conceptual demand and a high degree of explication of evaluation criteria. Further, these features include five other aspects of pedagogy thought to facilitate the clarification of evaluation criteria. The additional aspects are first, immersion in or high exposure to specialised discourses. They include second, weak classification of teacher-learner spaces, where teachers physically occupy the same spaces as their learners and communicate with them frequently if not continually. A third feature comprises *respectful* rather than *authoritarian* regulative relations, where teachers use inter-personal coupled with art-positional modes of communication (based on their superior specialised knowledge rather than the general status conferred by their social positions). A fourth feature constitutes strong teacher control of sequencing and pacing which together create *correctly sized steps* to provide scaffolding for learners from their existing knowledge to positions of increased specialised knowledge. A final aspect comprises learner selection of (non-key) aspects of projects, which appears to enhance their engagement with their work. Teachers need to realise these features in their practices.

This set of pedagogic features was associated with success in matric-level art for all learners. In addition, pedagogy linked to success in upper middle-class contexts was fast-paced and businesslike, with strong differentiation of individual learners, and high levels of teacher control of sound and work-focus. In contrast, pedagogy linked to success in lower middle-class contexts was more relaxed and slower-paced; teachers addressed learners in small groups; and there was apparently high learner regulation of sound levels and work focus. In these classrooms, it appeared that learners' collectivity and learner-learner interaction mediated and assisted in the transfer of specialised knowledge. Teachers need to learn to vary their practice in these respects.

Some pedagogic features were associated with social class regardless of levels of achievement: it is clear that teacher-focus need not lie here. Interestingly, pedagogy linked to success in science and art classrooms was found to be similar. Two features – the stronger micro-level sequencing and selection of sources of reference in successful art classes – may be due equally to the differences in the knowledge forms of the respective subjects, or to the differing levels at which pedagogy was studied.

This article reports fine-grained delineation of pedagogic practice in a theoretically systematic way. Categorisations show that while constructs such as ‘code’, ‘power’ and ‘control’ enable rigorous analysis and comparison of features across a range of contexts and levels, these tools need not in themselves, given the demonstrated different ways in which they have been operationalised, pre-determine the way in which pedagogy is understood.

The study shows that teachers configure sets of pedagogic features in differing ways – each teacher manifesting clusters of features in unique ways. Importantly, key features are linked to success, and there are multiple ways of operationalising these *key features*. These findings could make a crucial contribution to the education and training of new teachers, as well as to the in-service education and training of existing teachers. Teachers can learn how to *vary pedagogic features selectively* in order to maximise the transfer and acquisition of specialised knowledge in specific social class contexts. In other words, teachers can selectively tighten or relinquish control of pedagogic features for accomplishment of curricular goals for specific groups of learners.

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