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The Effect of Teacher Approval on Students Social
and Academic Behaviour

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INTRODUCTION

Teacher approval and its effect on students' behaviour is going to be the central focus of this thesis. Since the 1970s, researchers have been demonstrating the power of teacher approval on the behavior of both individual students and whole classes. Interest in this area of inquiry has continued presumably because it has been felt that teacher approval was, is and will continue to be a significant aspect of good teaching.

This work has adopted an empirical approach to the collection of quantitative data, which has led to practical advice being offered to teachers. The effectiveness of this advice has been further evaluated using robust empirical methods. The theoretical basis of this study comes from the behaviourist/cognitive-behavioural tradition and especially applied behavioural analysis in which the behaviour of pupils is evaluated in terms of the effect that both antecedents and consequences surrounding that behaviour.

The thesis includes four separate but related studies. In the first and second studies, reported in chapter two and three, we investigated teacher and pupils verbal interactions, respectively, ten years later after the last study in the United Kingdom, and for the very first time in Italy. An introduction about the Educational system in both the UK and Italy is supplied, in order to clarify differences within and between the two systems. A large-scale observational study across both the two countries used a partial interval time sampling observational schedule to record the frequency and type of verbal behaviour of teachers and whether students were on-task or off-task. The relationship between teacher and pupil behaviour was also explored. Furthermore, differences between the two countries were investigated.

Compared with the United Kingdom, higher rates of both teacher disapproval and pupils off-task behaviour were found in Italian classrooms across the school grades.

As a result, in the third study, reported in chapter four, a group of Italian primary school teachers took part in a training programme specifically designed to encourage them to change aspects of the verbal feedback they gave to their pupils. The teachers and pupils were observed both prior to and after the teachers had received some training aimed at increasing both the quality and quantity of their feedback. Thus, the effects that changes

in teacher feedback had on pupil behaviour were examined. Social validity of the intervention was evaluated via a questionnaire.

The last study, reported in chapter five, was aimed to address gaps in current knowledge about the effect of different kind of teacher approval - other than vocal approval – on students’ performance. So far, behavioural work has had its focus on verbal approval, although some investigators (e.g. Bain, Houghton & Williams, 1991; Güner, 2012) have included the measurement of non-verbal behaviours. These are usually defined as facial expressions, head nods, etc. Yet when much of the teachers’ time is spent on marking pupils’ work, it is surprising not to find research on the effects of teachers’ written comments, ticks, etc. An exploratory study, and an experimental study, were conducted with undergraduate Psychology students in order to investigate the effect of written approval on their academic performance.

Chapter 1

THEORETICAL FRAMEWORK

Control the environment and you will see order in behavior.

- B. F. Skinner (1967, p. 399)

The behaviour of individuals or groups can be influenced or changed as a result of variations in their immediate environment. A very early account of this phenomenon in education is provided by White (1975), citing a study of Gilchrist (1916) who reported an improvement on pupils' test performance as a result of praise from the teacher.

Although initially pioneered by behaviour analysts working in special education contexts, it has subsequently been clearly and unequivocally demonstrated, in a variety of educational contexts and settings, that such key teacher behaviour as contingent praise/approval may be systematically deployed by teachers so as to increase both academic (e.g. Weinstein, Laverghetta, Alexander & Stewart, 2009) and appropriate social behaviours (Swinson & Harrop, 2001) and to decrease inappropriate behaviours (e.g. Merrett & Wheldall, 1990).

However, despite its documented effectiveness for increasing desired students' behaviours, teacher approval is used infrequently in general education classrooms (Sulla, Perini, Rollo, 2013). Merrett and Wheldall (1987) argue that teachers are "very quick to notice social behaviour of which they disapprove and continually nag children about it [...] but they hardly ever approve of desired social behaviour [...] In other words, children are expected to behave well and are continually reprimanded if they do not" (p.100).

Why does this happen?

1.1 Approval

A generalised conditioned reinforcer is a conditioned reinforcer that as a result of having been paired with many unconditioned and conditioned reinforcers does not depend on a current Establishing Operation (EO) for any particular form of reinforcement for its effectiveness (Cooper, Heron, Heward, 2007).

A common generalized conditioned reinforcer is “approval” (Skinner, 1957). It is often difficult to specify approval’s physical dimensions. It may be little more than a nod or a smile on the part of someone who characteristically supplies a variety of reinforcements. Most of the time it is conveyed through verbal praise. Although we cannot univocally define approval topography, its function is well known:

- Approval is a conditioned reinforcer because its reinforcing value is acquired through learning. It does appear to typically acquire reinforcement properties incidentally and early on in life. It occurs simultaneously with many reinforcers ever since we are new born in our caregiver’s lap. Primary/unconditioned reinforcers – both the addition of appetitive stimuli (e.g. food) and the removal of aversive stimuli (e.g. they change the nappy as soon as children soil themselves) - are paired with proximity, eye contact and frequent positive acknowledgments in mellow voice;

- Approval is a generalised reinforcer because a variety of reinforcing events contribute to its value. Praise from someone may be followed by attention, physical contact, smile, affection, or delivery of tangible rewards and other events (Kazdin, 2005). By virtue of this, approval is free from the control of specific motivating conditions and functions as reinforcer under most conditions.

Research has shown the positive effects of contingent praise on the behaviour of infants (e.g., Poulson & Kymissis, 1988), pre-schoolers (e.g., Connell, Randall, Wilson, Lutz, & Lamb, 1993), elementary school students (e.g., Chalk & Bizo, 2004; Martens, Lochner, & Kelly, 1992; van der Mars, 1989), adolescents (e.g., Staub, 1990; Wolery, Cybriwski, Gast, & Boyle-Gast, 1991), and adults (e.g., Haseltine & Mittenburger, 1990).

Therefore, although the stimuli that function as reinforcers are unique to each person and dynamic across time and context, attention and approval are reinforcing for most people, most of the time, including students.

Indeed, approval represents the most accessible reinforcement operation available to most teachers. The natural contingencies of the typical classroom, however, undermine teachers' frequent use of praise and strengthen their reprimanding behaviour (Alber & Heward, 2000). Naturally existing contingencies make it more likely that teachers will notice and attend to a disruptive student than to a student who is working quietly and productively. Disruptive behaviour often evokes teachers to respond immediately so disruptive behaviours will cease. When students yell out, tease one another, use profanity, or leave their seats and run around the classroom, teachers often provide negative attention (e.g., reprimands). Paying attention to students when they are behaving inappropriately (e.g., "John, you need to sit down right now!") is negatively reinforced by the immediate cessation of the inappropriate behaviour (e.g., John stops running around and returns to his seat). As a result, the teacher is more likely to attend to student disruptions in the future.

The effects of reprimanding a child who misbehaves are immediate - the negative reinforcement in the form of cessation of the annoying behaviour effectively and naturally teaches us to punish one another. On the other hand, the effects of verbal praise are usually delayed, making it difficult for us to learn to use praise. The behaviour temporally closest to the presentation of the reinforcer will be strengthened by its presentation. As Sidman (2006) described, "if the reinforcer does not immediately follow the response that was required for its production, then it will follow some other behaviour. Its major effect will then be upon the behaviour that bears, adventitiously to be sure, the closest prior temporal relationship to the reinforcement" (p.136). These naturally occurring contingencies are so pervasive that Foxx (1992) suggested that praising others can be considered "an unnatural act" for humans.

Although few teachers must be taught to reprimand students for misbehaviour, many teachers need help increasing the frequency with which they praise student accomplishments. Teacher praising behaviour is usually not reinforced as effectively as teacher reprimanding behaviour. Praising students for appropriate behaviour usually produces no immediate effects - they continue to do their work when praised. Although praising students for working productively on an assignment may increase the future likelihood of that behaviour, there are no immediate consequences for the teacher. By contrast, reprimanding students often produces an immediate change in the teacher's

world – disruptive behaviours cease (if only temporarily) - which functions as effective negative reinforcement for reprimanding.

The student's disruptive behaviours, in turn, may be positively reinforced by the teacher's attention, thereby increasing future incidences of disruptive behaviours. Students may stop the disruptive behaviour at the moment the teacher tells them off, but an increased frequency of disruptive behaviour in the future is likely if the teacher's attention functions as a reinforcer. Although teacher attention comes in the form of disapproval, it may still be reinforcing to the student. For some children, negative attention in the form of disapproval is better than no attention at all (Alberto & Troutman, 2012).

Punishers, like reinforcers, are not defined by their physical properties, but by their functions (Morse & Kelleher, 1977). Even stimuli whose presentation under most conditions would function as unconditioned reinforcers or punishers can have the opposite effect under certain conditions. Although common experiences mean that many of the same stimulus events function as conditioned punishers for most people, a punisher for one person may be a reinforcer for another. Alberto and Troutman (2012) pointed out how this definition is often misunderstood because of the colloquial way in which punishment is viewed as unpleasant things done to people who behave poorly. The faulty, yet common, assumption is that punishment is the "thing" administered – reprimand - not its effect. Ironically, if punishment were effective, it would be used less rather than more frequently with a particular student because the desired effect would be to reduce the inappropriate behaviour. However, students who repeatedly receive verbal reprimands, are sent out of the classroom, or receive suspensions are not being punished: They are instead being positively reinforced. The adage "negative attention is better than no attention" certainly applies here. Teachers expect students to behave well, and consequently ignore them when they do so, but usually give them negative attention when they behave poorly (Maag, 2001). Adult attention, even if it is negative, is a powerful reinforcer - especially for students with the most challenging behaviours who typically receive very little positive attention. Disruptive behaviour maintained by positive reinforcement in the form of attention from others can often occur in situations in which attention is otherwise infrequent, whether because the person does not have a repertoire to gain attention in desirable ways, or because others in the environment are

typically otherwise occupied. Vollmer and Iwata (1991) demonstrated how the reinforcing effectiveness of three classes of stimuli – food, music and social attention – varied under conditions of deprivation and satiation. The findings of Gewirtz and Baer (1958a; 1958b) indicated that social isolation appeared to establish attention as a positive reinforcer. Therefore, attention deprivation may establish disapproval as an effective reinforcer.

Attention is not the only maintaining reinforcer for disruption. In a review aimed at the identification of variables that influence the occurrence of problem behaviour, Hanley, Iwata, and McCord (2003) found that negative reinforcement in the form of escape from difficult instructions is even more frequent than attention.

For example, a teacher may find a student's disruptive behaviours to be aversive. Being sent out of the classroom to sit in the hall or principal's office may be punishing if the student finds exclusion from others aversive. Consequently, the teacher has been reinforced for sending the student out of the room because that act terminated the unpleasantness of the student's behaviour. Technically, the teacher has been negatively reinforced. This principle is in effect when any behaviour (e.g., sending a student out of the room) results in the removal of an aversion (e.g., disruption). Consequently, as we said, the behaviour that terminated an aversion is more likely to be performed in the future (Alberto & Troutman, 2012). In the case of disapproval, a vicious cycle is perpetuated: Teachers are negatively reinforced for reprimanding students, which, in turn, increases the use of reprimand, which then reinforces teachers for using it. The property of disapproval that teachers find reinforcing (e.g., sending a student out of the room) leads to a related, and undesirable, phenomenon called the "negative reinforcement trap". Patterson (1975) coined this term to explain coercive relationships that sometime evolve between parents and children, although its emergence can also be observed between teachers and students. In the previous example, a student was removed from the classroom for engaging in behaviours the teacher found annoying. If the student lacked the necessary skills for performing the stipulated assignment or found it boring, then being removed from the classroom negatively reinforced the student's performance of disruptive behaviours because these behaviours terminated the perceived unpleasantness of the assignment. Consequently, teachers and students have

often been caught in a trap in which both individuals were negatively reinforced for engaging in counterproductive behaviours.

1.1.1 Social attention as antecedent

The functional analysis of problem behaviour has paved the way to investigations that identify the benefits of manipulating antecedent variables to reduce problem behaviour and increase appropriate behaviour (Kern, Choutka, & Sokol, 2002). For example, McComas, Thompson, and Johnson (2003) decreased attention-maintained problem behaviour displayed by elementary students by delivering attention as an antecedent. However, attention appeared not to influence the occurrence of escape-maintained problem behaviour. When it comes to escape or avoidance of the task, altering some dimensions of the task appears to be a more effective strategy in order to reduce problem behaviour. For example, in an investigation of the effects of EOs on negatively reinforced self-injurious behaviour (SIB), Smith, Iwata, Goh, and Shore (1995) demonstrated that altering certain dimensions of task demands (e.g., duration) while continuing to provide negative reinforcement contingent on SIB resulted in idiosyncratic but predictable changes in the occurrence of SIB of individuals with developmental disabilities.

Although social attention was not effective in reducing problem behaviour maintained by negative reinforcement in the form of escape, a growing body of research demonstrated that approval - and social attention in general - may be effectively used as an antecedent, and not only as a consequence, in reducing disruption in the classroom.

Allday and Pakurar (2007) used a multiple baseline design across participants and settings to measure the effects of teacher greetings on students' on-task behaviour. Their intervention included greeting the target student at the door using the student's name (e.g., "I like your new shoes," "I am glad you are here today"), followed by a brief, positive interaction that communicated expectations. The results of their study found that teacher greetings increased on-task behaviour during the first 10 min of class. To provide additional, empirical support for this simple intervention, another study sought to extend this finding by determining if teacher greetings could increase how quickly students engaged in on-task appropriate behaviour, thereby decreasing the latency to

task engagement (Allday, Bush, Ticknor, & Walker, 2011). Latency was measured from teacher greeting until the participant was actively engaged for five consecutive seconds. Results showed that teacher greetings were effective at reducing latency to task engagement for all participants.

There are several plausible interpretations of these results. First, it is possible that antecedent attention provided during the greeting reduced or eliminated the EO for attention-maintained off-task behaviour, thereby increasing on-task behaviour during the initial portion of class (e.g., Laraway, Snyckerski, Michael, & Poling, 2003). Second, it is possible that the teacher greeting served as a discriminative stimulus to engage in on-task behaviour, because the greeting signalled the availability of teacher attention for task engagement (e.g., Ferguson & Houghton, 1992). Third, increases in student on-task behaviour may have been a result of unforeseen changes in the reinforcement schedule for appropriate behaviour (Allday & Pakurar, 2007).

Chapter 2

A MASS OBSERVATION STUDY OF STUDENT AND TEACHER BEHAVIOUR IN BRITISH SCHOOLS

2.1 Introduction

2.1.1 Education in the United Kingdom

The education system is divided into early years (ages 3–5), primary education (ages 5–11), secondary education (ages 11–18) and tertiary education (ages 18+).

Full-time education is compulsory for all children aged five to 17, either at school or otherwise, with children beginning primary education during the school year as soon as they turn five. After the age of 16, pupils may continue their secondary studies for a further two years (sixth form), leading most typically to A-level qualifications (similar to a high school diploma in some other countries), or, for some students, to other qualifications, like the Business and Technology Education Council (BTEC) qualifications, the international Baccalaureate and the Cambridge Pre-U.

Primary and secondary school can sometime be split into different types. In some counties of Britain, instead of primary schools, they have either Infant (5-7 years) and Junior (8-10) school, or First and Middle schools. For example, the counties of Suffolk and Dorset have a slightly different school system: First schools take in children between the ages of 5 and 9, whilst Middle schools take in children between the ages of 9 and 12. After this, the children then go on to attend a secondary school.

Primary Education

The primary stage covers three age ranges: nursery (under 5), infant (5 to 7 or 8) (Key Stage 1) and junior (up to 11 or 12) (Key Stage 2) but in Scotland and Northern Ireland

there is generally no distinction between infant and junior schools. In Wales, although the types of school are the same, the Foundation Phase has brought together what was previously known as the Early Years (from 3 to 5-year-olds) and Key Stage 1 (from 5 to 7-year-olds) of the National Curriculum to create one phase of education for children aged between three and seven. In England, primary schools generally cater for 4-11 year olds. Some primary schools may have a nursery or a children's centre attached to cater for younger children. Most public sector primary schools take both boys and girls in mixed classes. It is usual to transfer straight to secondary school at age 11 (in England, Wales and Northern Ireland) or 12 (in Scotland), but in England some children make the transition via middle schools catering for various age ranges between 8 and 14. Depending on their individual age ranges middle schools are classified as either primary or secondary.

The major goals of primary education are achieving basic literacy and numeracy amongst all pupils, as well as establishing foundations in science, mathematics and other subjects. Children in England and Northern Ireland are assessed at the end of Key Stage 1 and Key Stage 2. In Wales, all learners in their final year of Foundation Phase and Key Stage 2 must be assessed through teacher assessments.

Secondary Education

In England, public provision of secondary education in an area may consist of a combination of different types of school, the pattern reflecting historical circumstance and the policy adopted by the local authority. Comprehensive schools largely admit pupils without reference to ability or aptitude and cater for all the children in a neighbourhood, but in some areas they co-exist with other types of schools, for example Grammar schools - where admission is based on a successful selection test (11+). Academies, operating in England, are publicly funded independent schools. Academies benefit from greater freedoms to help innovate and raise standards. These include freedom from local authority control, the ability to set their own pay and conditions for staff, freedom around the delivery of the curriculum and the ability to change the lengths of terms and school days. The Academies Programme was first introduced in March 2000 with the objective of replacing poorly performing schools. Academies were

established and driven by external sponsors, to achieve a transformation in education performance. The Academies Programme was expanded through legislation in the Academies Act 2010. This enables all maintained primary, secondary and special schools to apply to become an Academy. The early focus is on schools rated outstanding by Ofsted (The Office for Standards in Education, Children's Services and Skills is a non-ministerial department of the UK government) and the first of these new academies opened in September 2010. These schools do not have a sponsor but instead are expected to work with underperforming schools to help raise standards.

In Wales, secondary schools take pupils at 11 years old until statutory school age and beyond.

Education authority secondary schools in Scotland are comprehensive in character and offer six years of secondary education; however, in remote areas there are several two-year and four-year secondary schools.

In Northern Ireland, post-primary education consists of five compulsory years and two further years if students wish to remain in school to pursue post GCSE / Level 2 courses to Level 3. Ministerial policy is that transfer should be on the basis of non-academic criteria, however legally post primary schools can still admit pupils based on academic performance.

At the end of this stage of education, pupils are normally entered for a range of external examinations. Most frequently, these are GCSE (General Certificate of Secondary Education) in England, Wales and Northern Ireland and Standard Grades in Scotland, although a range of other qualifications are available. In Scotland pupils study for the National Qualifications (NQ) Standard grade (a two-year course leading to examinations at the end of the fourth year of secondary schooling) and NQ Higher grade, which requires at least a further year of secondary schooling. From 1999/00 additional new NQ were introduced in Scotland to allow greater flexibility and choice in the Scottish examination system. NQ include Intermediate 1 & 2 designed primarily for candidates in the fifth and sixth year of secondary schooling, however these are used in some schools as an alternative to Standard Grades.

Sixth form represents the final two years of secondary education, where students (typically between 16 and 18 years of age) prepare for their A-level (or equivalent)

examinations. Some secondary schools do not have a Sixth form, so children leave at the end of their fifth year.

In Northern Ireland, Lower and Upper Sixth (Year 13 and Year 14 respectively) are the equivalent of sixth form.

In the Scottish education system, the final year of school is known as Sixth Year or S6. During this year students typically study Advanced Higher and/or Higher courses in a wide range of subjects, taking SQA exams at the end of both S5 and S6 (The information contained in this paragraph was retrieved in Department for Education website: <https://www.gov.uk/government/organisations/department-for-education>).

A list with all the different key stages for the British Education system is provided in Table 1.

Table 1- *key stages for the British Education system*

	England and Wales	Northern Ireland	Scotland
Primary Education	7 years: age 4/5-11 Year R-6	6 years: age 4/5-10 P2-P7	7 years: age 4/5-11 Primary 1-7
Secondary Education	4 years: age 11 to 16 Year 7-12	5 years: age 10 to 16 Year 8-12	6 years: age 11-17 S1-S6
Further Education	2 years: 16 to 18 Year 12-13 Sixth Form or work-based training	2 years: age 16 to 18 Year 13 (Lower sixth), Year 14 (Upper sixth)	

2.2 Review of Literature

2.2.1 Introduction

Since the 1960s, researchers have been demonstrating the power of teacher behaviour on the behaviour of both individual students and whole classes (Sulla, Perini, Rollo, 2013). Behavioural research and demonstration studies carried out over the past 50 years or so would appear to suggest that by manipulating the nature and quantity of feedback given to pupils, especially the use of praise and reprimand then the behaviour of pupils would change. However, this gives rise to a series of questions concerning teachers' use of feedback to their pupils and the relationship that this may have to their

behaviour in those classes: How often do teachers praise their pupils? How often do they tell them off? What effect does the frequency of both these types of verbal feedback have on the pupils' behaviour? Are there other variables of the classroom setting that might have an influence on pupils' behaviour? To what extent does the use of reprimand and praise vary between teachers who teach pupils of different ages?

Studies collocated with a research literature relating to non-experimentally manipulated or "naturalistic" rates answered those questions. Over the years, there have been a number of investigations that have centred on what might be called naturalistic or existing rates: descriptive studies on the ways in which teachers typically deploy approval in the classroom.

2.2.2 The study of natural rates of approval and disapproval in the classroom

In his "functional analysis of teacher praise", Brophy (1981) reports findings from six separate studies she and Good carried out with various colleagues in the United States in the 1970s in the context of more general investigations into teacher-student interactions in the classroom. The Brophy-Good dyadic interactions coding system was employed in all of these studies which allows for the separate coding of teachers' responses to academic performance as against classroom conduct (Brophy, 1981). The data overall indicated that teachers approved of students' behaviour more than they disapproved, and were most likely to praise "good answers" or "good work" than to criticise "poor answers or poor work". On the other hand, teachers were much more likely to criticise "poor conduct" than to respond to "good conduct", rarely praising students for appropriate behaviour. In all of the studies reported, praise for good conduct was the least frequent teacher response. Brophy's own summary of the data from these studies overall is that "the typical teacher seldom praises good answers or good work and rarely praises good conduct" (Brophy, 1981, p. 10).

Seeking to determine the natural rates of teacher verbal approval and disapproval in classrooms, White (1975) reported the findings of 16 separate studies involving 104 teachers and their classes in the United States. Although some of the work of Brophy (1981) (and her colleagues) may have predated that of White, White's work is generally considered as the first study to have as its primary focus natural rates of teacher

approval and disapproval. Rates of teacher approval and disapproval were recorded on an observational schedule known as TAD, an acronym for Teacher Approval and Disapproval observation record. White and her colleagues only recorded teacher's verbal behaviour. A distinction was made between what she classified as *instructional* and *managerial* responses. Later studies have also made this distinction, but tend to use terminology where a distinction is made between teachers' responses to academic behaviour (instructional) and social behaviour (managerial). White (1975) found those teachers of the youngest children, Grades one and two (equivalent to infant children in the UK), gave more approval to their pupils than disapproval. However, the opposite appeared to be the case for teachers of older pupils - i.e. teachers of junior and secondary pupils. She also reported that both approval and disapproval rates declined in higher grades. So it would appear that American teachers were gradually giving their pupils less verbal feedback when they taught successively older groups of pupils. When the teacher behaviour was analysed in terms of instructional and managerial responses, White found that teachers gave highest rates of approval for instructional behaviour, while for managerial behaviour the reverse was true. Indeed the rate of teacher approval was so low for managerial behaviour that White described it as "almost non-existent" (p. 369) – four of the 16 studies reported had a zero rate of approval statement to managerial (social) behaviour in a total of 2520 minutes of observation time (42 hours). The results of other early investigations, Heller and White (1975) and Thomas, Presland, Grant and Glynn (1978) tended to support White's findings. The Heller and White study involved comparing the teacher styles used by teachers of higher and lower ability children. They found that the teachers of lower ability children tended to use more disapproval especially of a 'managerial' type than when they were teaching pupils considered as more able. The Thomas et al (1978) study was carried out in New Zealand with teachers of grade 7 pupils, aged between 11 years and 13 years. They found rates of negative feedback on average nearly three times higher than rates of positive feedback. This might suggest that the pattern of teacher behaviour was common across cultures and countries. Further support for White's results was added by an extensive study by Rutter, Maughan, Mortimore and Ouston (1979) based on observations in 12 secondary schools in London, involving 402 different lessons. They report that reprimands occurred approximately twice as often as did teacher praise.

All of the studies discussed thus far limited the definition of teacher approval and disapproval to verbal responses. In 1977, in Australia, Russell and Lin broadened “positive teacher attention or response” to include non-verbal responses. In their study, approval responses were deemed to include “contact, praise, facial attention, and academic recognition” (p. 151), with disapproval responses being defined as “criticism, threats, facial attention, ignoring, holding the child, sending the child out of the room and punishment” (p. 150). Ten selected students from one (the only) grade seven class of 37 students were identified as belonging to the worst-behaved group (WB) and ten to the best-behaved group (BB). This study found that the WB group received more teacher attention of any kind than the BB group. They found that the teacher gave far more attention to the WB group in terms of both attention for inappropriate behavior but also their appropriate behaviour. On the basis of this finding, the authors suggest that the high levels of appropriate behaviour of the BB group were not being maintained by teacher attention to this behaviour, and could have been maintained by factors other than teacher attention, some possibilities being intrinsic interest in their work or by satisfaction in achievement and mastery (p. 154). This was, however, a very small study involving only one teacher in one class. The place that Russell and Lin occupy in the literature turns more on the fact that they appear to be the first to include non-verbal responses to the operational definition of teacher attention in the investigations of naturalistic rates of teacher approval and disapproval.

2.2.3 The shift to more teacher approval than disapproval

White’s findings remained unchallenged for the rest of the 1970s. A series of other investigations since that time have tended to contradict much of her early work. Strain, Lambert, Kerr, Stagg and Lenker (1983), reported that teachers of children, even those in the earlier grades, tended to give more negative than positive comments. Findings from a study by Nafpaktitis, Mayer and Butterworth (1985) carried out in 29 intermediate schools in Los Angeles (equivalent to younger secondary pupils), however, changed this trend of results. They found approval to be more frequent than disapproval in grades 6 to 9.

In terms of the trend of findings reported so far (with the exception of Brophy 1981), it would seem prudent to heed the caution expressed by Nafpaktitis et al. (1985, p.366) that it was perhaps “premature” to conclude that the findings of the previous studies (White, 1975; Heller & White, 1975) reflect the norm in terms of teachers’ use of approval and disapproval. In light of the work reported from the mid-1980s on, this advice would appear to be well founded.

A study in the United States designed largely as a follow-up to White (1975), and conducted by Wyatt and Hawkins (1987), confirmed that the caution issued by Nafpaktitis et al. (1985) was indeed warranted. In their study of 35 classrooms, which included classes from Kindergarten to Grade 4, as well as Grades 9 and 12, the authors used a modified version of White’s ‘TAD’ schedule. Although like White, they found mean rates of both approval and disapproval were highest in classrooms for the youngest pupils, they found that in all age groups approval was more common than disapproval. They also recorded the on and off-task behaviour of the pupils in each class and were surprised to find a lack of any association between teachers’ use of approval and disapproval and pupil behaviour. They acknowledge that this might have been a consequence of the recording method in that they only recorded task orientation when approval or disapproval occurred. Thus, it is probable that they under-recorded on-task behaviour as it was only this was only noted when teachers gave approval.

The finding that there were no statistically significant relationships between teachers’ ages, years of full-time teaching experience, how recent was teachers’ latest degree, and approval and disapproval rates led Wyatt and Hawkins (1987) to conclude that no assumptions should be made about the “type” of teacher who is likely to deliver appropriate levels of approval and disapproval in the classroom.

2.2.4 British Studies

In addition to the work of Rutter et al. (1979) previously discussed, a major study reported by Galton, Simon and Croll (1980) was carried out in the 1970’s into junior classroom practice. The focus of this study was on teacher’s use of language and its relationship to pupils’ learning. Their observations recorded only teacher praise and criticism rather than broader criteria of positive and negative feedback. They reported

rates of teacher praise to be around half those for statements of what they called ‘critical control’, a category that appears primarily to be concerned with feedback about behaviour and did not include any comments teachers may have made about the pupils’ work. The definitions used in this study are not precise and the methodology is poor, for instance, no inter-observer reliability was calculated. Hence, their results should be treated with caution.

Merrett and Wheldall (1986) developed an observation system termed OPTIC (Observing Pupils and Teachers in Classrooms). The system recorded teacher approvals and disapprovals but the observers also recorded any non-verbal behaviour by the teacher that could be interpreted as a positive or negative event, such as smiling or frowning at a pupil. In 1987, the authors used their OPTIC schedule to examine the rates of teacher approval and disapproval in British primary and middle schools. Teachers who had attended courses at the university carried out the observations. In total 128 teachers took part in the research. It was found that in general teachers gave more approval than disapproval, but that the majority of this approval was directed towards work rather than behaviour. Conversely, more disapproval was directed towards behaviour than work. The actual proportions of feedback are presented in Table 2.

Table 2- *Percentage of Feedback given by 128 Primary and Middle school teachers to their pupils (Merrett and Wheldall, 1987)*

Behaviour	Approval	Disapproval	Total
Academic	50	16	66
Social	6	28	34
Total	56	44	100

In terms of rates of approval and disapproval, they found very similar mean rate of approval in this study of 1.15 per minute to that found by Nafpaktitis et al (1985) of 1.3 per minute. However the mean rate of disapproval was somewhat higher, 0.93 per minute, compared with that found by Nafpaktitis of 0.29 per minute.

In a second study, also using the OPTIC schedule and using teacher observers Wheldall, Houghton and Merrett (1989) looked at teacher and pupil behaviour in 130 secondary schools. They found a similar pattern of teacher verbal behaviour to that which they had reported earlier in primary schools as Table 3 illustrates.

Table 3- Percentages of Approval and Disapproval to academic and social behaviours in 130 secondary classrooms (Wheldall et al, 1989)

Behaviour	Approval	Disapproval	Total
Academic	45	15	60
Social	10	30	40
Total	55	45	100

Overall the pattern of secondary school teachers' verbal behaviour would seem to be very similar to that of their primary school colleagues in terms of the proportions of feedback. In terms of the rates of approval and disapproval, they did find some differences as shown in Table 4.

Table 4- Rates of verbal feedback in Primary, Middle and Secondary Schools

	Primary/Middle^a (5-12 years)	Secondary^b (12-16 years)
Total Approval	1.15 per min	0.65 per min
Total Disapproval	0.93 per min	0.53 per min
Total Feedback	2.08 per min	1.18 per min

^a Merrett & Wheldall, 1987; ^b Wheldall et al., 1989

The total approval rate expressed as a mean per observed minute was substantially lower than the rate in the primary/middle school study. The total disapproval rate was, again, considerably lower than in the primary sample (Wheldall et al., 1989).

Furthermore, it would appear that teachers of younger pupils feel the need to provide more feedback to their pupils, but that the proportions of that feedback is very similar to feedback given to all pupils.

2.2.5 Further Studies

A number of other studies who also used the OPTIC schedule developed by Merrett and Wheldall (1986) have reported from schools across the English-speaking world. Winter (1990) observed 86 secondary teachers and their classes in Hong Kong. He reported

very similar results to those reported by Wheldall et al. (1989) in terms of the proportions of verbal feedback given by teachers.

Wheldall and Beaman (1994) have given an account of work with teachers in Sydney, Australia. They found that their sample of 36 Australian primary school teachers gave very similar proportions of verbal feedback as the British counterparts as reported by Merrett and Wheldall (1987). However the overall Australian rate of teacher responses was about half that of the British teachers. The rate of total approval by Australian teachers was 0.61 per minute, compared with British teachers at 1.15 per minute. Slightly smaller differences were also found in the rates of disapproval. Wheldall and Beaman (1994) also reported on a sample of 79 secondary school teachers and their pupils. Again, in comparison with the Wheldall et al (1989) study, the proportions of teacher feedback were very similar between the British and Australian studies, but again the rate of teacher feedback of the Australian teachers was lower.

One study that does not fit this pattern was that reported by Charlton, Lovemore, Essex and Crowie (1995). This research was carried out on the island of St. Helena in the South Atlantic with a sample of junior aged children (7 to 10 years old) and their teachers. Again, they used the OPTIC schedule. Charlton et al reported higher approval rates directed towards both behaviour and learning. In particular, for the younger children more teacher responses were directed to social behaviours (57.4%) than to academic behaviours (42.6%). This is the only study to find that approval rates for both social and academic behaviours exceeded disapproval rates. It is true that the population and culture in St. Helena may be very different from the rest of the world, for instance, at the time of the study there was no television on the island. It is also possible that these pupils differ markedly in other characteristics from other populations previously studied. It is noticeable that the vast majority of other studies have been carried out in schools in essentially urban areas. St. Helena in contrast is essentially an isolated rural environment. What is clear however is that the teachers in that particular school appear to be on the right track: as far as classroom management is concerned, they report on-task rates of 96% for the younger children in their sample and 92% for the older children. As Beaman and Wheldall (2000) point out, “the behaviour of the pupils and the responses of the St. Helena teachers suggest that the classrooms of St. Helena could be exemplars of effective classroom behaviour management” (p.442).

2.2.6 British studies: 10 years later

Following the earlier work in this area, Harrop and Swinson (2000) sought to examine teacher approval and disapproval “a further ten years later” (Harrop & Swinson, 2000, p. 473) in the context of British classrooms. Harrop and Swinson used radio microphones (a technique not used in previous studies) to record teacher responses in 10 classes at each level of infants, junior, and secondary schooling. They reported that their results were generally in line with the investigations of the 1980s (Merrett & Wheldall, 1987; Wheldall et al., 1989; Whyatt & Hawkins, 1987), where approval rates were higher than disapproval rates at each school level (Harrop & Swinson, 2000). Similarly, they found that, overall, teachers gave higher rates of approval for academic behaviours than for social behaviours and higher rates of disapproval for social behaviours than for academic behaviours. Combining the data from all levels of schooling (there were few differences in each level, see below), teachers in this study provided, on average, 1.30 approval responses per minute and 0.58 disapproval responses per minute. The actual proportions of feedback are presented in table 5, 6 and 7.

Table 5- *Percentage of Feedback given by 16 infant school teachers to their pupils (Harrop & Swinson, 2000)*

Behaviour	Approval	Disapproval	Total
Academic	61	12	73
Social	4	23	27
Total	65	35	100

Table 6- *Percentage of Feedback given by 16 junior school teachers to their pupils (Harrop & Swinson, 2000)*

Behaviour	Approval	Disapproval	Total
Academic	63	8	71
Social	5	24	29
Total	68	32	100

Table 7- *Percentage of Feedback given by 18 secondary school teachers to their pupils (Harrop & Swinson, 2000)*

Behaviour	Approval	Disapproval	Total
Academic	51	11	62
Social	3	35	38
Total	54	46	100

Overall the pattern of secondary school teachers' verbal behaviour would seem to be very similar to that of their primary school colleagues in terms of the proportions of feedback. In terms of the rates of approval and disapproval, they did find some differences as shown in table 8.

Table 8- *Rates of verbal feedback in infant, junior and secondary schools (Harrop & Swinson, 2000)*

	Infant (5-7 years)	Junior (7-11 years)	Secondary (11-16 years)
Total Approval	1.60 per min	1.17 per min	1.27 per min
Total Disapproval	0.78 per min	0.54 per min	0.42 per min
Total Feedback	2.38 per min	1.71 per min	1.69 per min

Since the earlier studies conducted in Britain (i.e. Merret & Wheldall, 1987) were of separate primary and middle schools samples, direct comparisons at the primary school level are difficult.

Of particular relevance to this review is the finding that secondary teachers in this study provided, on average, 1.27 approval responses and 0.42 disapproval responses per minute (Harrop & Swinson, 2000). This is comparable with the findings of Wheldall et al. (1989) and Winter (1990) who, while finding lower rates of approval at the secondary level (0.65 and 1.0 responses per minute respectively), found very similar rates of disapproval (0.53 and 0.58 responses per minute) to those found in the study by Harrop and Swinson (2000).

The summary of reported rates of teacher approval and disapproval to academic and social behaviour detailed by Harrop and Swinson (2000) provides a clear picture of what was occurring in the classroom in this study. While disapproval to academic behaviour occurred about 14 times every hour, disapproval to social behaviour occurred at the higher rate of about 21 responses per hour. In sharper contrast, approval to academic behaviour occurred at the high rate of about 72 times per hour, whereas

approval to social behaviour occurred only about three times in an hour. It was clear that while students were receiving considerable positive feedback about their academic behaviour, being recognised for behaving “appropriately” was a rare occurrence. Furthermore, the finding that the ratio of approval to disapproval for social behaviour (0.04 to 0.61 or 1:15) was the same as reported in White (1975) for the parallel response category managerial behaviour, is compelling evidence that not much had changed in terms of how teachers respond to the inappropriate social behaviour of their students in the quarter of a century.

Unlike earlier studies (e.g. White, 1975; Whyatt & Hawkins, 1987; Wheldall et al., 1989), the work completed by Harrop and Swinson (2000) did not find that the teacher approval decreased with the increasing age of students. Furthermore, the level of approval in the latter study was twice that found in Wheldall et al. (1989) for British secondary classes.

Apter, Arnold and Swinson (2010) conducted a nationwide survey further ten years later after the last study in the context of British primary classrooms. They carried out observations in over 140 classes in England, Wales and Scotland. The survey used a partial interval time-sampling observational schedule to record the following five categories: teacher academic positives, teacher social negatives, teacher social positives, teacher social negatives and academic redirections, neutrally toned instructions and explanations, as well as pupil on-task behaviour from a random sample of pupils. The observations were made in sets of two so that most classes were observed in the morning and afternoon. Note was made of the presence of any teaching assistants present during a lesson, the size of class and the effect that social deprivation, as measured by the percentage of free school meals, might have on the behaviour of the pupils.

The one finding that did show a slight difference was in terms of the proportion of positive feedback directed to pupils’ behaviour. Earlier studies had found comparatively low rates of this type of feedback (Merret & Wheldall, 1987, 6 per cent; Harrop & Swinson, 2000, 4 per cent), whereas in the study by Apter et al. (2010) it was assessed at almost 15 per cent (Table 9). The reason for this difference is difficult to interpret and may well be due to differences in methodology.

Table 9- *Percentage of Feedback as assessed in 140 lessons in British primary schools (Apter, Arnold, & Swinson, 2010)*

Behaviour	Approval	Disapproval	Total
Academic	46	9	55
Social	15	30	45
Total	61	39	100

In terms of the rates of approval and disapproval, they found that in Primary school approval occurred about 41 times every hour, disapproval occurred at the lower rate of about 26 responses per hour. (Table 10).

Table 10- *Rates of verbal feedback in primary schools (Apter, Arnold, & Swinson, 2010)*

	Primary (5-11 years)
Total Approval	0.68 per min
Total Disapproval	0.43 per min
Total Feedback	1.11 per min

In this study, students in primary schools were observed to be on-task for an unexpectedly high proportion of their time in class – mean average: 85–86%. This was a higher on-task rate than has been recorded before in British schools (see Table 11).

The widespread nature of the research also allowed the authors to look at a range of other factors. They found that both pupil and teacher behaviour was very similar in both the morning and afternoon and that class size, the presence of a teaching assistant or the proportion of the pupils having free school meals had a little effect on behaviour.

Table 12 provides a summary of the natural rates of teacher approval and disapproval reported in relevant studies. Comparative rates of approval and disapproval per minute are presented. In addition, a summary is provided of teacher approval in the various studies, expressed as a percentage of all responses, to provide a means of comparing teacher approval behaviour over time.

As can be seen from table 10, and as already mentioned, a shift from a preponderance of disapproval to approval was reported from the mid-1980s with the shift being sustained to the study by Harrop and Swinson (2000) and confirmed in the survey of Apter et al. (2010).

Table 11- Average student on-task times from three UK studies presented in chronological order

Study	Type of sample	Sample size: number of classes observed	On-task rate (%)
Merrett and Wheldall (1987)	Primary/middle	128	69.7
Harrop and Swinson (2000)	Infant	16	81.24
Harrop and Swinson (2000)	Junior	16	78.47
Apter, Arnold and Swinson (2010)	Primary	141	85.23

Table 12- Natural rates (per minute) of teacher approval and disapproval and percentage of all responses being approvals

Authors	Year/ Place	Subjects	Appr.	Disapp.	% Appr.
White	1975 USA	104 teachers, students in grades 1-12	0.41	0.46	47
Heller & White	1975 USA	10 teachers, students in Grades 7-9	0.29	0.52	36
Thomas, Presland, Grant, & Glynn	1978 NZ	10 teachers, 10 grade 7 classrooms	0.20	0.58	26
Nafpaktitis, Mayer, & Butterworth	1985 US	84 teachers in their classes in intermediate school	0.90	0.29	76
Wyatt & Hawkins	1987 USA	35 teachers and their classes (grades K to 4, 9 and 12)	0.38	0.28	58
Merrett & Wheldall	1987 UK	128 Primary and middle school teachers and their classes	1.15	0.93	55
Wheldall, Houghton, & Merrett	1989 UK	130 Secondary school teachers and their classes	0.65	0.53	55
Winter	1990 Hong Kong	86 Secondary school teachers and their classes	1.0	0.58	63
Charlton, Lovemore, Essex, & Crowie	1995 St Helena	7 Primary school teachers and their classes	1.61	0.50	76
Charlton, Lovemore, Essex, & Crowie	1995 St Helena	8 Middle school teachers and their classes	1.41	0.89	61
Harrop & Swinson	2000 UK	10 infant school teachers, 10 junior school teachers and 10 secondary school teachers	1.30	0.58	69
Apter, Arnold, & Swinson	2010 UK	70 Primary school teachers in 141 lessons	0.68	0.43	61

2.2.7 Correlations between teacher approval, disapproval, and pupil behaviour

Although many of the early studies from those of White (1975) onwards assume a relationship between teacher feedbacks and both learning and behaviour, less than half the studies demonstrate such a link in the form of correlations between different types of feedback and pupil behaviour. The earliest of these was Thomas et al (1978). Invariably positive feedback by teachers was positively correlated with compliant pupil behaviour as measured by pupil on-task behaviour, while negative feedback or disapproval showed a negative correlation with on-task behaviour. This relationship shows a very consistent pattern across a number of studies as is apparent in Table 13. These studies vary in many aspects of their methodology and of course in the age of the pupils studied, but a very consistent pattern of behaviour of both teachers and their pupils is apparent. Rates of approval are positively associated with on-task behaviour, which is invariably defined as pupils following the teachers' instructions and completing whatever task has been set for them to do (e.g. Meyers & Anderson, 2010). While, conversely, negative feedback or disapproval by the teacher invariably shows a negative correlation with on-task behaviour.

Table 13- *Studies demonstrating a correlation between teacher feedback and pupil behaviour*

Study	Pupil Age	Correlation	
Thomas et al. (1978)	Secondary	Approval & On-Task	+0.40
		Disapproval & On-Task	-0.48
Nafpaktitis et al. (1985)	Secondary	Approval & On-Task	+0.21
		Disapproval & Off-Task	+0.54
Merrett & Wheldall (1987)	Primary & Middle	+ve Academic & On-Task	+0.10
		-ve Social & On-Task	-0.31
Wheldall et al. (1989)	Secondary	+ve Academic & On-Task	+0.44
		+ve Social & On-Task	+0.37
Winter (1990)	Secondary	-ve Social & On-Task	-0.32
		Approval & On-Task	+0.40
Swinson & Harrop (2001)	Junior	Disapproval & On-Task	-0.40
		Approval & On-Task	+0.60
Apter et al. (2010)	Primary	Approval & On-Task	+0.41
		+ve Academic & On-Task	+0.35

It would appear that at secondary level a reasonably consistent pattern could be seen. The majority of studies report a positive correlation between teacher approval and on-task behaviour of around 0.40, while there was also found a negative relationship between disapproval and on-task behaviour of around the same level. The only exception to this is the study of Nafpaktitis et al (1985), which reports a slightly less positive relationship of only +0.20 between approval and on-task behaviour. In their intermediate school study, they found that teacher disapproval scores were positively correlated with off-task behaviour (+0.54).

As regards the relationship in younger pupils, Merrett and Wheldall (1987) research was with both primary and middle school pupils between the ages of eight and thirteen. The correlations they found were lower than those for secondary school, although a proportion of their sample was of secondary school age. They found a small, but significant negative correlation between with disapproval to academic behaviour and on-task behaviour of only -0.15 ($p < 0.05$) and a larger negative correlation between teachers disapproval to social behaviour and on-task behaviour of -0.31 ($p < 0.01$). They did not find any significant relationship between teachers' positive feedback and pupil behaviour. They acknowledge that their correlational evidence is weak to say the least and appears to justify Brophy's (1981) stance that 'teachers' verbal praise cannot be equated with reinforcement'. However they do argue that relationship between positive teacher feedback and pupil behaviour is best demonstrated by experimental data, 'there are literally hundreds (probably thousands) of published studies demonstrating that contingent specific teacher praise can and does increase a wide variety of behaviours.' (p. 102).

Winter (1990) found strong correlations between teacher approval and on-task behaviour (0.40) but also a strong negative correlation between disapproval and on-task behaviour (-0.40). Although these findings confirmed the findings of Wheldall et. (1989), a degree of caution should be exercised given that the data were based on one observation only per teacher, not the minimum of three as recommended when using OPTIC (Merrett & Wheldall, 1986).

In a subsequent and related article to Harrop and Swinson (2000), the same researchers looked at the relationships between teacher approval and disapproval in the junior and infant classrooms and student on-task behaviour (Swinson & Harrop, 2001). A

significant positive correlation between teacher approval and on-task behaviour was found at the infant school level.

The results of Apter et al. (2010) in terms of the relationship between positive feedback from the teacher and the behavior of the pupils were very similar to previous research. They found a positive relationship between teacher's approval for academic behavior and pupil on-task behavior. However, no statistically significant link was found between negative comments about academic work and student on-task behaviour. There was a statistically significant link ($r = 0.183$, $N = 131$, $p < 0.05$) between the teachers' neutral verbal behaviour, and pupils' time on-task. This result is supportive of the hypothesis that highly verbal teachers are more successful in keeping students on-task (Apter et al., 2010).

As with all correlational studies, one must be cautious about any conclusions one might like to make. For instance, it is not possible to say whether positive feedback from teachers was made in response to appropriate pupil behaviour or whether it was the positive teacher feedback that led to increased appropriate pupil behaviour. Similarly, whether the negative teacher feedback was made in response to inappropriate pupil behaviour or whether such feedback led to an increase in inappropriate behaviour cannot be demonstrated by these studies. However, as far as negative feedback is concerned, it is possible to conclude that high rates of negative feedback do not appear to have any real effect on encouraging appropriate behaviour. In other words, admonishing pupils for their behaviour does not appear to be an effective strategy for improving pupil behaviour.

2.3 Methodology issues and the Partial Time Interval Observation recording sheets for 6 Subjects (PTIObs6s)

As a whole, the studies published over the last forty years appear to be less than consistent in their findings. This variability may be due to changes in teacher practice over that time, as well as differences in cultural or national characteristics of both teachers and pupils, but also to the methodology employed by the different research teams (Swinson, 2003), for example:

- a) The methods used for recording teachers' verbal and/or non-verbal behaviour.
- b) Whether only verbal or verbal and non-verbal behaviour was recorded
- c) The criteria used by the observer for indicating approval or disapproval.

2.3.1 Definitions

Early studies, such as reported by White (1975), used an observation schedule called TAD (Teacher Approval and Disapproval Record). Approval was defined as 'verbal praise or encouragement' and disapproval as 'a verbal criticism, reproach, or a statement that the student's behaviour should change from what was unacceptable to acceptable to the teacher'. It is clear that White and her colleagues were only recording verbal behaviour and using a reasonably tight definition of verbal praise.

However, as Harrop and Swinson (2007) pointed out, when we turn to the reports of investigations using behavioural techniques, there is considerable variation between investigations in both terminology and definitions of behaviour. Bain *et al.* (1991), for example, used the term 'encouragement', with a checklist of six items, which included 'teachers' positive verbal comments', and 'building on pupils' ideas'. Wheldall *et al.* (1985) wrote of teachers' positive responses, both verbal and non-verbal, and were careful to point out that these were 'contingent with reference to what had been done'. Other researchers have tended to use the terms approval and disapproval without any standardization of definitions.

Talking about their physical dimensions or topography, there are undoubtedly semantic problems involved in using terms like praise, encouragement, approval (it is evident that all these words are not synonymous). Therefore, the need for careful and very precise definitions of the target behaviours is undeniable; including examples of inclusions and exclusions may be helpful. It is fundamental to be more analytic, following the lead of research such as that of Harrop and Swinson (2000) who gave detailed definitions of 'approval' and 'disapproval' and went a stage further than usual by adding 'disapproval with redirection', defined as the teachers' response following disapproval which describes an approved behaviour (p. 477).

As mentioned, another feature of teacher feedback that is included in many of the later studies is the element of non-verbal behaviour. Russell and Lin (1977) broadened

‘positive teacher attention or response’ to include ‘contact, praise, facial attention and academic recognition’. Many subsequent studies have also included elements of non-verbal feedback, i.e. Fry (1983), Strain et al (1987), Nafpaktitis et al (1985) and indeed all those studies by Wheldall and his colleagues that used the OPTIC schedule.

Instances of non-verbal behaviour was usually identified in facial expressions, head nods, etc. which may have different interpretations in different cultures.

As in the most recent investigations (Harrop & Swinson, 2000; Swinson & Harrop, 2001; Apter et al., 2010), we decided to consider exclusively verbal behavior. Non-verbal behaviour is harder both to define and observe. That makes it difficult to obtain reasonably high levels of observer agreement (Harrop & Swinson, 2007).

Definitions of target behaviours as reported in the the overview and guidance notes of the proforma we used (Apter, 2013) were:

INX: “Get your books out and find page nineteen”, “Line up by the door”, “Find and underline all the verbs”, “This is the way to set out these calculations”, “ and “Here is a diagram of an internal combustion engine,” are INstructions, eXplanations or eXpositions. Typically, INX are *neutrally* delivered instructions, academic commentaries or descriptions being given for the first time to groups of students at the beginning of new activities or at transition points by a class Teacher (or a substituting Teaching Assistant). INX percentage gives an indication of how much whole-class neutrally-toned teacher-talk there is in a particular timed period.

TPP: “Well done, class, good work”, “Darren, that’s a really good argument you have made about Shylock’s motivation”, and “Sophie, that’s lovely writing”, are all examples of Task Performance Positive comments. Typically, they are enthusiastic or positive recognition / praising comments addressed to students about outcomes from a specified activity that has been directed, organised or sanctioned by the class Teacher.

SBP: “Good, 7N. It was great to hear a lot less chat today and see a lot more work happening”, “Thanks Darren for helping Paul with his spellings”, and “You are cooperating as a research group and working well together”, are all examples of Social Behavioural Positive comments. Typically, they are enthusiastic or positive recognition

/ praising comments to students in respect of their pro-social behaviours or compliance with instructions or rules that an adult has given them.

TPC: “John, I am a bit disappointed that you haven’t completed that worksheet yet”, “You need to up your work rate, if you are going to be ready for the exam next week”, and “Sophie, remember. The examiner needs to be able to read your writing” are all examples of Task Performance Criticism and *repeated* directions (redirections). Typically, they are critical or corrective comments to students about outcomes from a specified academic activity that has been directed, organised or sanctioned by the class Teacher.

SBC: “Stop leaning back on your chair, John and interfering with Phillip. He’s trying to work, even if you are not”, “I need to remind you Blue Table that the rule is ‘keep your hands and feet to yourself’”, and “Kelsey. Enough! I won’t tolerate swearing”, are all examples of Social Behavioural Criticism or re-direction comments. Typically, they are *corrective* comments and *repeated* directions addressed to students about anti-social, non-compliant or unacceptable behaviours by an adult.

2.3.2 The extent to which observers influence recorded events by their presence and by their expectations

As Sommer and Sommer (2002) have suggested, it seems likely that the presence of observers might influence teachers’ behaviour, either by inducing feelings of self-consciousness and/or by the teachers seeking to do what they feel observers want to see. In order to reduce possible biases due to the presence of observer the overview and guidance notes of the proforma (Apter, 2013) provided a procedure of “teacher preparation”:

Once the Teacher(s) and classes have been selected you need to:

- Reassure the Teacher(s) that they have not been chosen for a critical purpose.
- Explain that all recorded aspects of the observation are anonymous and confidential and will only be used for SUKSCB.

- Explain that they have the right to not take part and that they have the right at any time during the observation to ask the observer to leave the classroom.
- Explain that they have a right to see the record of observations at the end of the day.
- It is important that you do not discuss with the Teacher(s) in detail the exact nature of your observations prior to completing the exercise. If Teachers have advanced knowledge that you are recording their verbal behaviour then they may well alter their behaviour. It is sufficient to use the following form of words: *'The observation will be concentrating on student behaviour and the classroom variables that influence behaviour.'*

As regards observers' expectations, Harrop (1979) described a classroom investigation in which trained observers were instructed that the prime objective was to examine levels of observer agreement. Although the observers were given differing expectations about the course of the investigation, there was no evidence that observer expectations had affected the results, nor of effects of observer presence.

A procedure intended to guarantee inter-observer reliability was set up as described in the next paragraph.

2.3.3 Inter-observer agreement

The other methodological weakness of many studies which also needs to be considered is the way in which inter-observer agreement is calculated. For example, as Wyatt and Hawkins (1987) noted, White (1975) evaluated interobserver reliability in a separate study using the same measurement method, but not for the investigation which yielded the approval/disapproval data, "as if the reliability was intrinsic to the method rather than to any particular application" (Wyatt & Hawkins, 1987, p. 30).

It has become appreciated by many investigators in this field of research that percentage observer agreement can be very high, through chance alone, when the behaviour concerned occurs for a very large proportion, or for a very small proportion, of the observation time. Harrop and Swinson (2007) recommended that agreement rates should be calculated using the formula kappa (Cohen, 1960), because it takes into

account agreements due to chance, since it is easy to get high levels of observer agreement purely by chance when behaviour is occurring (or not occurring) during most of the observational session.

For this investigation, each observer was trained into the use of the proforma using brief tapes showing teacher-pupils interactions which were freely accessible on Youtube. Findings of prior studies or expectations from the present study were not mentioned. This procedure was continued until percentage observer agreement reached above 80% on two successive occasions. From that point, the observers entered the classrooms and scored the actual lessons by themselves but were aware that at least the 30 per cent of the lessons, taken at random, would be scored independently by the researcher and observer agreement calculated. This procedure was necessary in view of work such as that of Romanczyk, Kent, Diament, and O'Leary (1973) and of Kent, Kanowitz, O'Leary, and Cheiken (1977) which demonstrated that percentage agreement levels between observers' data may be considered representative of the performance of single observers only when the single observer has no knowledge of when agreement checks are to be made.

Agreement rates were calculated using the formula kappa (Cohen, 1960). Kappa was calculated at between .77 and .89 for joint observations, with a mean value of .85.

2.3.4 Time Sampling

All of the studies considered in this review, used direct observation to gather information on teacher's verbal and non-verbal behaviour. Very few of the studies used continuous observation. The TAD schedule used by White (1975) and others expects the observer to spend 20 seconds immediately after each teacher approval or disapproval to make a verbatim record of exactly what was said. Those studies, which also recorded the on-task behaviour of the pupils, followed a procedure of allowing the observer to spend a period of time recording teacher's behaviour followed by a period of observing the pupils. Wyatt and Hawkins (1987) used a partial interval technique that involved ten seconds of pupil and teacher observation followed by ten seconds of recording. In the case of those studies, which used the OPTIC schedule, the observer's time was split into three-minute periods, three minutes of pupil observation followed by

three minutes of recording of teacher verbal and non-verbal behaviour. A similar time allocation was also used by Nafpaktitis et al (1985). In all these studies therefore a record of the teachers verbal behaviour was not continuous with the behaviour of the pupils. It is true the samples of teacher verbal behaviour were collected from the same class on the same day as the record of pupil behaviour, but these two sets of observations were not contemporaneous. The only study not to use this time sampling method was that of Thomas et al (1978). They had expected the observers to record pupils' on-task behaviour at 10-second intervals and to interrupt these observations to record verbatim any teacher approval or disapproval. Thus in this case the record of the pupil behaviour was not continuous.

The point also needs to be made that there are inherent flaws in all time sampling methods. Harrop, Daniels and Foulkes (1990) point out that especially in this area of classroom observation certain methodological issues have been neglected, both in terms of the accuracy but also of the sensitivity of various observational methods. Classroom observational studies tend to use one of two methods of behavioural recording, momentary time sampling (MTS) and partial interval recording (PIR).

An observer using MTS records whether the target behavior is occurring at the moment that each time interval ends; when using PIR, the observer records whether the behaviour occurred at any time during the interval (Cooper et al., 2007). In fact some techniques such as OPTIC (Wheldall and Merrett, 1986) use both methods almost simultaneously. Harrop and Daniels (1986) point out that MTS appears to be more accurate at estimating average rates of frequent behaviours, that estimates of absolute rates are inaccurate in both methods, but that PIR is more sensitive in detecting relative changes in behavioural rates.

To get over all the problems mentioned below Harrop and Swinson (2000), unlike the latest investigation that used the OPTIC schedule (Merrett & Wheldall, 1986), decided to use a more detailed method of recording pupil behavior, the Pupil Behaviour Schedule (Jolly & McNamara, 1992). The schedule uses a momentary time sampling technique. Thus a record can be made not only of the instances of on and off task behaviour similar to the OPTIC schedule used by Merrett and Wheldall (1986), but a record can also be made of the nature of the off-task behaviour. The Pupil Behaviour Schedule is devised in such a way that it allows a direct comparison to be made between

the judgements of each observer at each episode of the momentary time sample. Inter-observer reliability could not only be calculated in terms of overall agreement, but also in terms of individual event agreement.

Furthermore, they used a small tape-recording device to record everything the teacher said over the period of observation. The advantage of this approach was not only in terms of simultaneously recording both teacher and pupil behaviour, but also of their being able to analyse what the teacher actually said (Harrop & Swinson, 2000).

Apter et al (2010) in their investigation on the natural rates of approval and disapproval in British classrooms they conducted ten years later after the last one carried out by Harrop and Swinson (2000), decided to come back to a paper and pencil method.

The PTIObs6S employed a range of techniques to record what was happening in a classroom. Pupil behaviour was recorded with a momentary time sampling. Once students had been observed for one minute in each cycle, the teacher's verbal behaviour was recorded using partial-interval recording. As it was not possible to accurately observe the teacher during the period when student on-task behaviour was being observed, a statistically acceptable degree of inter-observer unreliability has been allowed for in the design of the PTIObs6S observational protocol.

2.3.5 The proforma

The schedule used for the observations had been developed for use by educational psychologists as part of University of Wolverhampton's "Applied Psychology: Behaviour in Schools" (AP:BiS, Apter, 2013) in-service training course. The Partial Time Interval Observation recording sheets for 6 Subjects (PTIObs6s. See Appendix 3) was based on the "OPTIC" schedule used by Merrett and Wheldall (1986). Like OPTIC, the PTIObs6s entails a repeated timed observation being made of a small sample of five randomly chosen students in a class. Observations were alternated with recordings of teacher behaviour. The students were observed as being on-task or off-task. Teachers' verbal behaviours, as specified above, were tallied under five headings:

INX: Instructions, explanations or expositions;

TPP: Task Performance Positive comments;

SBP: Social Behavioural Positive comments;

TPC: Task Performance Criticism;

SBC: Social Behavioural Criticism.

Unlike previous studies, we wanted to measure percentage of teacher neutral verbal behaviour. Apter et al (2010) demonstrated a positive relationship between the teachers' use of this type of verbal behaviour and student on-task behaviour in primary schools. They found that teachers who both talk a lot and talk positively (high rates of praise) to their students can expect that their students are more likely to stay on-task.

2.4 The research

The Survey of UK Secondary Classroom Behaviour (SUKSCB) was a national project designed by Brian Apter. The project was aimed to observe and analyse student behaviour in Secondary Schools across the United Kingdom. It followed a similar study of primary school behaviour, the 'Mass Observation of Primary Classroom Behaviour', (Apter, Arnold, & Swinson, 2010), of which the main results have been previously discussed.

Before designing the very first investigation into the natural rates of teacher approval and disapproval in Italy, as research assistant, I had followed the work of Brian Apter and collaborated into the realization of the British project.

2.4.1 Hypothesis and aims

With the current study, we were interested in investigating a number of research questions including:

- a) Do previous findings about patterns of teacher feedback currently apply in the present school setting?
- b) Are student 'on-task' rates and classroom behaviour better or worse than previously reported?
- c) Are previous findings about the relationship between teacher's verbal behaviour and pupils' on-task time confirmed?

Furthermore:

Class size has been investigated to a limited extent. Blatchford, Russell, Bassett, Brown, and Martin (2006) concluded that the positive or negative effect of varying class size was dependent on teacher behaviour. Therefore,

d1) is there any variation in pupils' conduct due to class size?

There has been some research evaluating the effectiveness of teaching assistants in the classroom (Balshaw & Farrell, 2002) but little observational research examining how their presence might influence the behaviour of students.

d2) is there any variation in pupils' conduct due to the number of adults in class?

Apter et al (2010) found a relationship between primary school student on-task behaviour and the overall size of school. Southwark and Weindling (2002) reported that large primary schools achieve better results because they benefit from a higher standard of leadership (with higher levels of pay) and economies of scale in terms of the provision of human and material resources.

d3) is there any relationship between overall size of the schools and pupils' conduct?

Furthermore, (d4) we wanted to examine whether the percentage of free school meals is associated with differences in student on-task behaviour. Whilst the correlation between take-up of free school meals and social deprivation is imperfect, free school meals are still used by educational researchers as the frequently cited indicator of economic-deprivation in a school's catchment area (Apter et al., 2010).

A limitation of studies carried out in the UK has been that they have been exclusively carried out in large cities. The studies of Wheldall et al (1989) and Merrett and Wheldall (1987) were carried out in Birmingham schools. Harrop and Swinson (2000) used Liverpool schools. For the first time in the UK, Apter et al (2010) compared primary school teacher and students behaviour in different geographical settings. They found that teachers in inner city schools gave more feedback about behaviour (both approval and disapproval) than teachers in schools in suburban or rural areas but there were no statistically significant differences in the levels of student on-task behaviour associated with this increased feedback.

e) Looking at secondary school sample, are there local type variations in data?

We wanted to investigate (f) “time of day” variations in data, seeing that, anecdotally, many teachers report that children behave in a less compliant way in the afternoon.

We wanted to examine (g) differences in teachers’ use of verbal feedback to students in different age-cohorts.

We wanted to examine (h) whether teachers’ experience (as number of years teaching) is associated with differences both in their verbal behaviour and in students’ time on-task.

2.4.2 Method

The EPNET Internet-based discussion forum provided a means to involve educational psychologists in the United Kingdom in a large scale classroom observation project. Dissemination of materials to interested psychologists began in 2010. Observers were also recruited through the Principal Educational Psychologists’ network. Informed consent of head teachers and classroom teachers was elicited. As students were anonymously identified by a coded signifier, neither student nor parent permission was sought except where head teachers requested this. Materials and detailed instructions were disseminated via the EPNET file archive or directly emailed to respondents. Results were emailed back using a spreadsheet (See Appendix).

1) Participants

A total of 130 individual educational psychologist observers was issued sets of documents from the project’s email address, 25 respondents downloaded documents from the EPNET file site and 180 classroom observations were returned from 24 observers across the United Kingdom (Bangor, Calderdale, Caldicot, Dumbarton, Eccles, Havant, Hillingdon, King's Lynn, Liverpool, London, North Tyne, Ormskirk, Plymouth, Poole, Southampton, Surrey, Swansea, Wolverhampton).

2) Procedure

The recording of the teachers' verbal behaviour and the behaviour of the pupils did not start immediately on their arrival in the teaching room. If not, pupils were allowed to come into the room and find their seat. The observers were often introduced to the class who were then told to ignore their presence. Once the class had begun to settle down the recording of the teacher's verbal behaviour and the behaviour of the pupils' behaviour commenced.

When observing the class each observer sat at the back of the room in a position where they could observe all the pupils. In the case of some of the observations especially the craft lessons, the observer was required to move around the room to ensure accurate observation. Detailed instructions of how to use the schedule are contained in Appendices.

In each observation, five students selected randomly were observed. Once students had been observed for one minute in each cycle, the teacher's verbal behaviour was recorded using partial-interval recording.

Observers returned pairs of observations of classes being taught by the same teacher, one in the morning and one in the afternoon. Class observations were for a minimum of 20 minutes each with a one minute time-interval for each cycle. This meant observers returned observations variable in terms of duration. In order for the observations to be comparable, TPP, SBP, TPC and SBC, scored as raw tallies, were considered as frequencies (tallies/total duration of the observation).

2.4.3 Results

The results of this study are presented in the following order:

- a) The proportion of types of feedback provided by teachers to their pupils and the rates of teacher approval and disapproval;
- b) The percentage of pupils' on-task behaviour;
- c) The relationship between the teachers' use of verbal feedback and the behaviour of the pupils in their classes;

- d) The relationship between pupils on-task behaviour and non-geographical contextual variables (i.e. Class size; Adults present; Number on roll; Percentage of free school meals);
- e) The effect of the geographical context of the school on teacher and student behaviour;
- f) A comparison of teacher and students behaviour between morning and afternoon lessons;
- g) The difference in rate of teacher positive and negative feedback over the year groups;
- h) The relationship between teachers' experience (as number of years teaching), teachers' use of verbal feedback and pupils' on-task behaviour;
- a) The percentages of positive and negative feedback directed by teachers to their pupils' academic work or social behaviour are presented in table 14.

Table 14- *Percentage of teacher feedback as assessed in 180 lessons in British secondary schools*

Behaviour	Approval	Disapproval	Total
Academic	46	11	57
Social	8	35	43
Total	54	46	100

The majority of feedback was of a positive nature and directed in response to pupils' work. Most negative feedback was directed towards pupils' behaviour and very little positive feedback was directed towards pupil behaviour.

In terms of the rates of approval and disapproval, it seems that approval occurred about 26 times every hour; disapproval occurred at the rate of about 22 responses per hour (Table 15).

Table 15- *Rates of verbal feedback in British secondary schools*

	Secondary (11-16 years)
Total Approval	0.43 per min
Total Disapproval	0.37 per min
Total Feedback	0.80 per min

Although approval rates are seen to be higher than disapproval rates, both the rates of approval and disapproval was found to be lower than the ones reported by previous

investigations, as well as the rate of total verbal feedback (Wheldall et al., 1989; Harrop & Swinson, 2000) (Table 16).

Table 16- rates of teacher approval and disapproval as reported by studies conducted in British secondary schools from the 1980s to date

	Wheldall et al (1989)	Harrop & Swinson (2000)	Current investigation
Total Approval	0.65 per min	1.27 per min	0.43 per min
Total Disapp.	0.53 per min	0.42 per min	0.37 per min
Total Feedback	1.18 per min	1.69 per min	0.80 per min

It is possible that differences in methodology and/or in definitions of approval and disapproval could have influenced the overall finding, which could have been amplified by the method they used to record behaviour; however, such differences are unlikely to have influenced the findings between the levels.

A comparison in terms of percentages of average feedbacks is presented in Table 17.

As in all the previous investigations, approval is seen to be given primarily to academic rather than to social behaviours, with the reverse being the case for disapproval. A second finding, which is consistent with the previous results, is that approval rates are seen to be higher than disapproval rates.

Table 17- percentages of different types of teacher feedback as reported by studies conducted in British secondary schools from the 1980s to date

	Wheldall et al (1989)	Harrop & Swinson (2000)	Current investigation
Positive (Academic)	45	51	46
Positive (Social)	10	3	8
Total Positive	55	54	54
Negative (Academic)	15	11	11
Negative (Social)	30	35	35
Total Negative	45	46	46

b) The behaviour of a small sample of five randomly chosen students in each observation (N=180) was recorded with a momentary time sampling. The average percentage of pupil on-task behaviour in this study was 78 (s.d.=13,64; range 39-100).

As regards pupils' age, older pupils were found to be more on-task than younger pupils (Tab. 18). However, there were no statistically significant differences between year groups (Kruskal Wallis).

Table 18- Average students' on-task time by year group

Year group	Mean	Standard Deviation
7 (N=41)	75.74	13.5
8 (N=44)	77.97	12.9
9 (N=31)	76.17	14.9
10 (N=18)	81.73	8.1
11 (N=28)	75.27	16.2
12 (N=14)	85.42	11.1
Total (N=176)	77.68	13.6

c) Central to this study was the nature of the verbal behaviour of teachers in classrooms and the association that there might be with the way children work. The on-task percentage figures were taken as the dependent variable. This was correlated with the frequency of different categories of teacher verbal behaviour.

Only two out of the six variables we considered violated parametric assumptions. Distributions for Social Behaviour Praise (SBP) and Task Performance Criticism (TPC) were not nearly as symmetrical. High and positive values of both skewness and kurtosis indicated that data were more clustered around the low end of the scale and a more acute peak around the mean (very close to zero) in the distribution. This simply confirms that rates of both this kind of teacher feedback are quite unusual in secondary schools. However, we considered any transformation of the data as not licit, seeing that the distributions of SBP and TPC in our sample did take into account the normal patterns of teacher feedback reported in literature (e.g. Sulla et al., 2013). Due to the skewed nature of the data, a Spearman correlation was conducted to explore linear relationships between students' on-task behaviour and teacher verbal behaviour. A summary of the correlations is shown (Tab. 19).

There was a significant relationship between on-task behaviour and teachers' Social Behaviour Criticism ($\rho = -.459$, $p < .001$), and, symmetrically, between off-task behaviour

and teachers' Social Behaviour Criticism ($\rho=.468$, $p<.001$). The link is displayed graphically in scattergrams (Figure 1).

Table 19- *Correlations between students' on-task time and rates of teacher feedback*

	%Instructions Expositions	Task Perf. Praise	Social Behav. Praise	Task Perf. Criticism	Social Behav. Criticism
On-Task	.028	.053	-.052	-.151*	-.459***
Off-Task	-.035	-.044	.056	.158*	.468***
%Instructions Expositions	--	.504***	.411***	.430***	.290***
Task Performance Praise		--	.474***	.425***	.310***
Social Behaviour Praise			--	.346***	.192**
Task Performance Criticism				--	.417**

*Correlation is significant at the 0.05 level (two-tailed)

** Correlation is significant at the 0.01 level (two-tailed)

*** Correlation is significant at the 0.001 level (two-tailed)

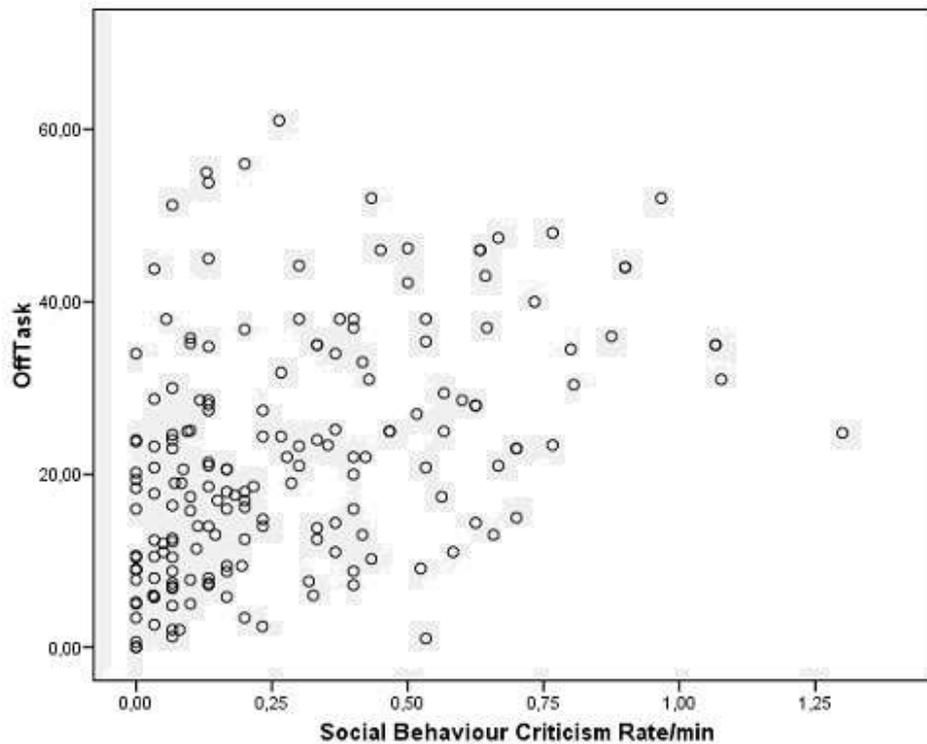
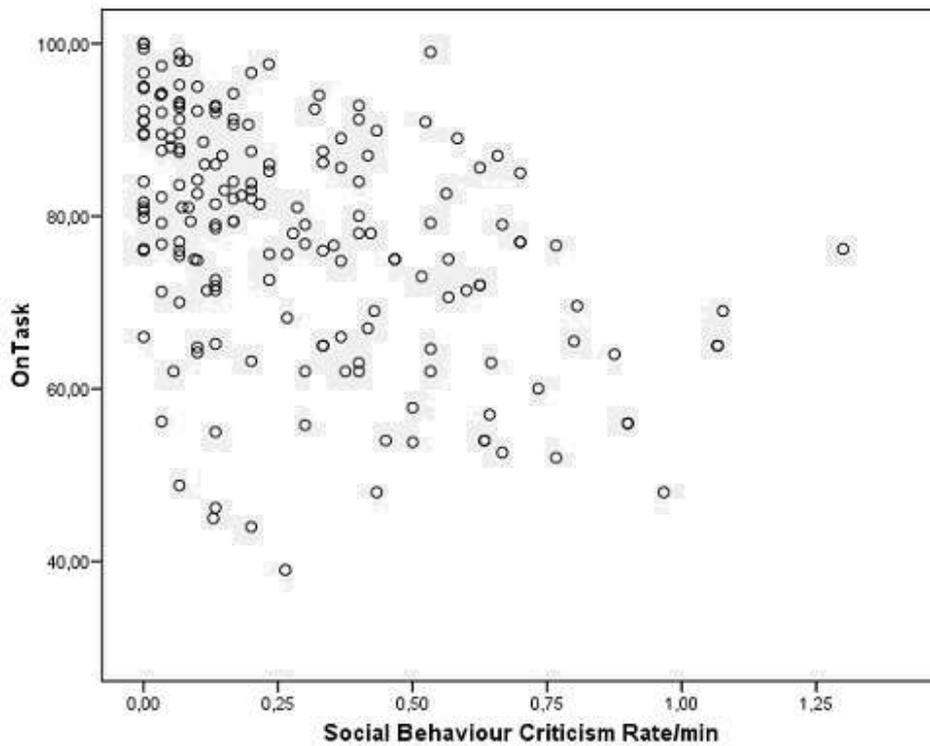


Figure 1- *Teacher Social Behaviour Criticism/student on-task and off-task behaviour*

Unlike the earlier investigations (e.g. Wheldall et al., 1989; Harrop & Swinson, 2000), a link was found between the teachers' criticism to academic behaviour and students'

time on-task (Table 18). However, caution should be used in drawing conclusions considering the weak significance ($\rho = -.151$, $p < .05$), which is probably due to the large sample size.

By contrast, unlike previous investigations (Nafpaktitis et al., 1985; Wheldall et al., 1989; Winter, 1990), no statistically significant link was found between positive comments and student on-task behaviour.

d) Table 19 illustrates correlations between on-task behaviour and a number of non-geographical contextual variables. Due to the skewed nature of the data, a Spearman correlation was conducted.

Table 19- *Correlations between a range of contextual variables and students' on-task behaviour*

	Class size	Adult present	Roll	%Free School Meal
OnTask	-.210**	-.062	.046	.040
Class size	--	-.117	.178*	-.319***
Adult present		--	.128	.041
Roll			--	-.588***

*Correlation is significant at the 0.05 level (two-tailed)

** Correlation is significant at the 0.01 level (two-tailed)

*** Correlation is significant at the 0.001 level (two-tailed)

There was a weak but significant relationship between class size (as number of pupils that were in class during the observation; $N=179$, $M=19$, $s.d.=7.36$, range 3-30) and student on-task time ($\rho = -.210$, $p < .01$). It seems that in larger classes there are lower levels of on-task behaviour. Although it may sound reasonable, caution should be used in drawing conclusions. The hypothesis should be further investigated seeing that the significance was weak and probably due to the large sample size.

No statistically significant correlations were found between the number of adults in class, overall size of school, percentage of free school meals and on-task.

e) The study also considered the effect of the geographical context of the school on teacher and student behaviour. Schools were categorised geographically by observers as

either inner-city (IC) or town/suburban (TS). Average rates of student on-task behaviour as a percentage, and types of teachers' verbal behaviour were considered (Table 20) in schools within each geographical context.

As the two groups were not balanced, we ran a non-parametric test (U di Mann-Whitney) in order to investigate any differences between teacher and pupils behaviour in inner city schools and town/suburban schools.

Teachers used significantly more instructions, expositions, explanations (neutral verbal behaviour) in inner city schools ($Mdn=37.50$) than in town/suburban schools ($Mdn=21$) ($U=1928.00$, $p<.01$, $r=-.23$).

Table 20- Averages for student on-task behaviour (%), and teachers' verbal behaviour types, per minute, and school geographical-type: Means (SDs)

Local type	On Task	%Neutral Verbal Behaviour	Academic +ive	Social +ive	Academic -ive	Social -ive
Inner city (N=41)	80.74 (13.7)	41 (21.9)	.37 (.3)	.06 (.1)	.11 (.2)	.21 (.2)
Town/Suburban (N=139)	77.21 (13.6)	30.15 (23.4)	.37 (.3)	.06 (.1)	.08 (.2)	.31 (.3)
Total (N=180)	78.01 (13.6)	32.62 (23.5)	.37 (.3)	.06 (.1)	.09 (.2)	.28 (.3)

Figure 2 suggests that town/suburban teachers used more negative social feedback (SBC) than teachers in inner-city schools but there were no statistically significant differences between any two groups of schools (IC, T/S).

Secondary school pupils in inner city ($Mdn=84$) tended to be more on-task than their peers in town/suburban schools ($Mdn=79$). However, the difference was not significant.

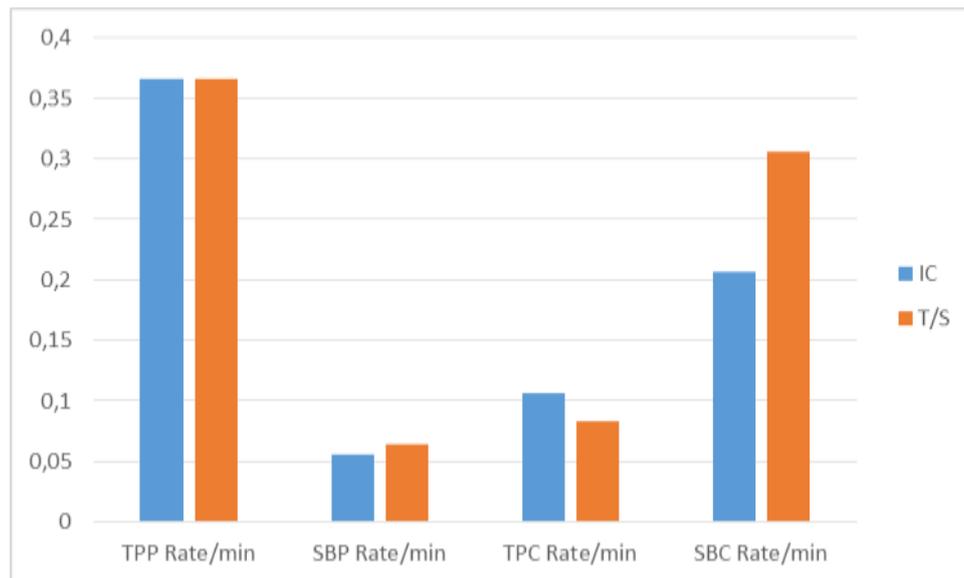


Figure 2- Average teacher verbal behaviour types (mean rate per minute), by school geographical-type

f) The study also considered comparisons of student on-task behaviour (%) in morning (a.m.) and afternoon (p.m.) lessons.

Table 21 compares the percentage rate of on-task behaviour and the rate per minute of different types of teacher verbal behaviour, as they were observed in morning and afternoon lessons.

Table 21- Comparison of averages for student on-task behaviour (%) and different types of teachers' verbal behaviour per minute, between morning (a.m.) and afternoon (p.m.) lessons: Means (SDs)

	On Task	Neutral Verbal Behaviour	Academic +ive	Social +ive	Academic -ive	Social -ive
a.m. N=88	79.68 (11.7)	33.24 (23.7)	.39 (.3)	.05 (.1)	.11 (.2)	.28 (.3)
p.m. N=80	77.86 (14.8)	27.67 (21.6)	.30 (.3)	.04 (.1)	.07 (.1)	.24 (.2)
Total N=168	78.82 (13.3)	30.59 (22.8)	.35 (.3)	.04 (.1)	.09 (.2)	.26 (.3)

Whilst there was a higher rate of all types of teacher verbal behaviour in the morning as well as a higher on-task, the difference was not statistically significant in any case.

Figure 3 illustrates that there are proportional similarities in the use of each type of teacher verbal behaviour in morning and afternoon lessons.

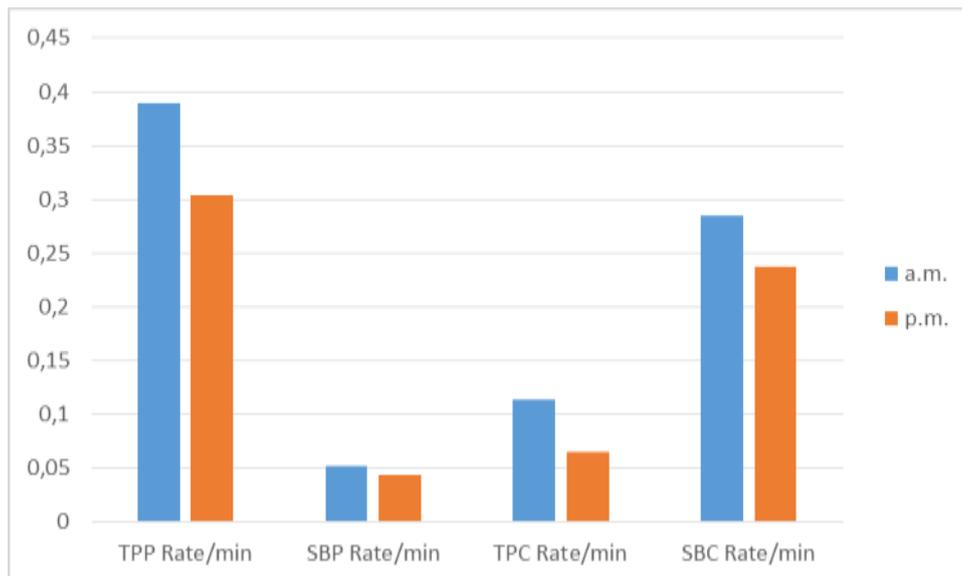


Figure 3- Average rates of different types of teacher verbal behaviour per minute in morning and afternoon lessons

g) Figure 4 plots average rates of teacher positive and negative feedback per minute, by year group. Given that Social Behaviour Praise and Task Performance Criticism were given by teachers at such a low rate, results were clearer displayed combining praise and criticism. A caution must be noted that there was a disproportionately small number of Year 10 and 12 observations.

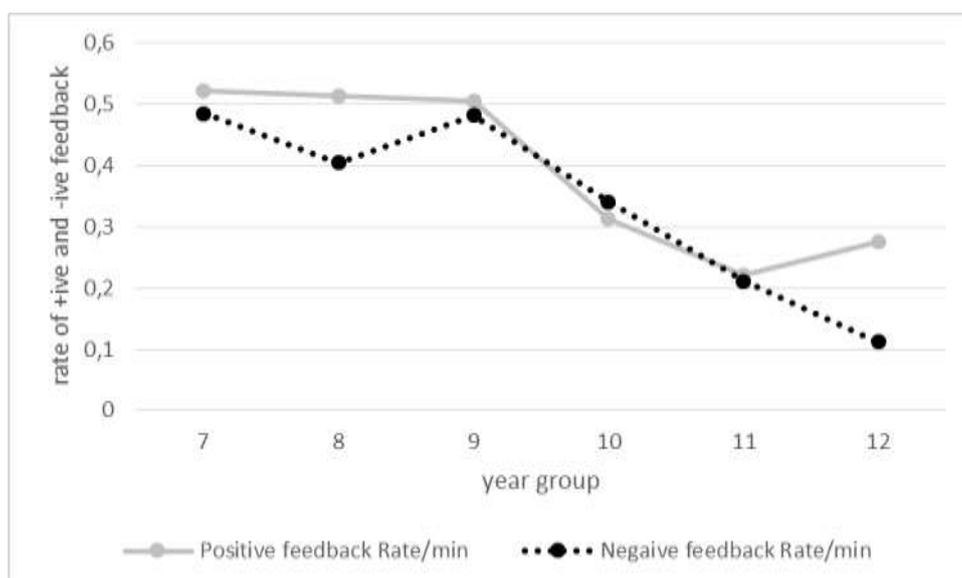


Figure 4- Graph of average rates of teacher positive and negative feedback by year group

Average rate of teacher positive feedback was significantly different over the year groups ($H_{(5)}=20.031$, $p<.01$). Jonckheere's test revealed a significant trend in the data: as older were the pupils, the median positive feedback rate decreased, $J = 4858.500$, $r = -.28$.

Average rate of teacher negative feedback was significantly different over the year groups ($H_{(5)}=32.244$, $p<.001$). Jonckheere's test revealed a significant trend in the data: as older were the pupils, the median negative feedback rate decreased, $J = 4534.500$, $r = -.34$.

Both approval and disapproval rates seem to decline as the age of the pupils increases. However, the higher on task rate (85.42 per cent, Tab.16) was found in year 12, where teachers gave the higher rate of positive feedback and the lowest rate of negative feedback.

h) The relationship between teachers' experience (as number of years teaching), teachers' use of verbal feedback, and pupils' on-task behaviour is displayed in Table 22. Teachers in this study had an average number of years teaching of 9.65 (s.d.=8.23, range 0-36).

Table 22- *Correlations between teachers experience, pupils' on task time, and teacher feedbacks*

	OnTask	%INX	Task Perform Praise Rate/min	Social Behaviour Praise Rate/min	Task Perform Criticism Rate/min	Social Behaviour Criticism Rate/min
Years teaching	.259**	.024	-.039	.038	-.206**	-.170*

*Correlation is significant at the .05 level (two-tailed)

** Correlation is significant at the .01 level (two-tailed)

There was a significant relationship between years teaching and students on-task time ($\rho=.259$, $p<.01$); There was a significant relationship between years teaching and Task Performance Criticism ($\rho=-.206$, $p<.01$); There was a weak but significant relationship between years teaching and Social Behaviour Criticism ($\rho=-.170$, $p<.05$).

i) Demonstrated the degree of association between, one at a time, some of the variables that were objects of our investigation, we attempted to build a more comprehensive model which could allow us to make some predictions.

We learnt from previous investigations (Sulla et al., 2013) that in secondary school classes we may find an average students on-task time between 70 and 80%. Therefore, we can reasonably say that a class where the on-task rate is attested to be higher than 80% represent the “perfect class”, and that, on the other hand, a class where pupils are on-task for less than 70% of the lesson is one that no teacher would wish to have. On-task rates of less than about 70% are generally considered potentially problematic. More than 90% are extremely high (Arnold, 2009).

We wanted to see which outcome was the most likely between “low on-task (<70%)”, “medium on-task (70%-80%)”, and “high on-task (>80%)”, when the predictors were teachers’ experience as number of years teaching, and both teacher rate per minute of approval and disapproval.

In our sample, on-task was attested to be higher than 80% in 87 observations; between 70 and 80% in 47 lessons; lower than 70% in 46 lessons.

The results of a multinomial logistic regression are presented in table 23.

The top half of table 22 shows the individual parameter estimates for the “high on-task (>80%)” category compared to the “low on-task (<70%)” category. We can interpret these effects as follows:

Teachers’ experience as number of years teaching significantly predicted whether pupils were on task either for less than 70% of the lesson or on-task for more than 80% of the lesson ($b=-.09$, Wald $\chi^2_{(1)}=6.68$, $p<.05$). The odd ratio tells us that, as teacher’s experience increased by a unit (one year), the change in the odds of the pupils being “highly” on-task (rather than being on-task for less than 70% of the lesson) is .91: pupils are less likely to be off-task if the teacher is more experienced.

Teacher approval rate predicted whether pupils were on task either for less than the 70% of the lesson or on-task for more than 80% of the lesson ($b=-2.22$, Wald $\chi^2_{(1)}=6.51$, $p<.05$). The odd ratio tells us that, as the rate of approval increased by a unit (about .0167), the change in the odds of the pupils being “highly” on-task (rather than being on-task for less than 70% of the lesson) is .11: pupils are less likely to be off-task if the teacher gives more approval.

Table 23- multinomial logistic regression results

OVERALL MODEL: $\chi^2(6) = 47.96, p < .001$; Nagelkerke $R^2 = .30$				
PREDICTORS:				
Low on-task (<70%) vs. High on-task (>80%)	B(SE)	Odd Ratio	95% CI:	
			Lower bound	Upper bound
Intercept	-.873 (.455)			
Years Teaching	-.091 (.035)*	.913	.853	.978
Approval Rate/min	-2.218 (.870)*	.109	.020	.598
Disapproval Rate/min	4.858 (.954)**	128.798	19.863	835.174
Medium on-task (70-80%) vs. High on-task (>80%)				
Intercept	-.733 (.406)			
Years Teaching	-.030 (.027)	.970	.921	1.022
Approval Rate/min	-1.448 (.720)*	.235	.057	.963
Disapproval Rate/min	2.914 (.860)**	18.434	3.419	99.389

Note: * $p < .05$, ** $p < .01$

Teacher disapproval rate predicted whether pupils were on task either for less than the 70% of the lesson or on-task for more than 80% of the lesson ($b=4.86$, Wald $\chi^2(1)=25.95$, $p<.001$). The odd ratio tells us that, as the rate of disapproval increased by a unit (about .0167), the change in the odds of the pupils being “highly” on-task (rather than being on-task for less than 70% of the lesson) is 128.80: pupils are much more likely to be on-task if the teacher gives less disapproval.

The bottom half of table 22 shows the individual parameter estimates for the “high on-task (>80%)” category compared to the “medium on-task (70%-80%)” category. We can interpret these effects as follows:

Teacher approval rate predicted whether pupils were on task either for a percentage of time between 70 and 80% or on-task for more than 80% of the lesson ($b=-1.45$, Wald $\chi^2(1)=4.05$, $p<.05$). The odd ratio tells us that, as the rate of approval increased by a unit (about .0167), the change in the odds of the pupils being “highly” on-task (rather than being on-task for a percentage of time between 70 and 80%) is .24: pupils are less likely to be in the category “medium on-task” if the teacher gives more approval.

Teacher disapproval rate predicted whether pupils were on task either for a percentage of time between 70 and 80% or on-task for more than 80% of the lesson ($b=2.91$, Wald $\chi^2(1)=11.49$, $p<.01$). The odd ratio tells us that, as the rate of disapproval increased by a unit (about .0167), the change in the odds of the pupils being “highly” on-task (rather

than being on-task for a percentage of time between 70 and 80%) is 18.43: pupils are more likely to be on-task if the teacher gives less disapproval.

In conclusion, it seems that students are more likely to be on-task if their teacher is more experienced and gives them more approval and much less disapproval.

2.4.4 Discussion

This study links in with a sequence of investigations that have extended over the past forty years. Interest in this area of inquiry has continued presumably because it has been felt that teacher feedback was, is and will continue to be, a very important element of good teaching.

To summarise results that have been obtained in this study:

- a) The proportionality of different types of verbal behaviour used by teachers appears not to be changed. As in all the previous investigations (Wheldall et al., 1989; Harrop & Swinson, 2000), approval rates are seen to be higher than disapproval rates; approval is seen to be given primarily to academic rather than to social behaviours, with the reverse being the case for disapproval;
- b) Students in secondary schools were observed to be on-task for a slightly lower proportion of their time in class – 78% - compared to previous investigations into British secondary schools.

While the finding seemed to be consistent over the investigations – Rutter, 1975, 81.5 per cent; Wheldall et al., 1989, 80.5 per cent; Harrop & Swinson, 2000, 81.8 per cent -, we found percentage of British secondary school pupils on-task behaviour to be slightly lower. However, comparison between this study and others is difficult since that as has been pointed out earlier the method of calculating on-task behaviour has varied between different studies;

- c) There was a negative statistically significant relationship between student on-task behaviour and teacher Social Behaviour Criticism, and, symmetrically, a positive statistically significant relationship between off-task behaviour and teacher Social Behaviour Criticism.
- d) Neither the proportion of children entitled to free school meals, the overall size of school, nor the number of adults in a class could be significantly linked with the

frequency of teacher–student interactions or with percentage rates of student on-task behaviour. A weak correlation was found between class size and students’ on-task time.

e) There were few differences in teacher verbal behaviour between schools in different types of geographical area. Teachers in inner city schools used more neutral verbal behaviour than those in towns and suburbs. Students were on-task to the same extent irrespective of geographical context.

g) Both approval and disapproval rates seem to decline as the age of the pupils increases. This finding is consistent in literature (Sulla et al., 2013).

h) There was a significant relationship between years teaching and students’ on-task time. As one of the variable which resulted to share a large portion of variance with the on-task measure, teachers’ experience was included as a predictors in a multinomial logistic regression model, together with rate of teacher approval and disapproval. It resulted that students are more likely to be on-task if their teacher is more experienced and gives them more approval and much less disapproval.

These findings were obtained from the largest secondary classroom observation study to date, both in terms of the numbers of classrooms observed, and in terms of the geographic spread of those classrooms across the United Kingdom. The study affirmed a number of findings from previous investigations. It also facilitated a detailed analysis to be made of different types of teachers’ verbal behaviour. The method and PTIObs6S used for the study appeared to be fit for purpose. Observers used the PTIObs6S without reporting any operational difficulty. Queries from observers were usually clarifications of procedures. The most frequent were to do with selecting students to observe. Queries were easily clarified via email.

There are remarkable consistencies in terms of patterns of feedback given when compared to the previous investigations in British classrooms (Wheldall et al., 1989; Harrop & Swinson, 2000). As in all the previous investigations, approval is seen to be given primarily to academic rather than to social behaviours, with the reverse being the case for disapproval. Such a finding transcending time, methodology and school system can be quoted as an established feature of observed teacher behaviour. A second finding, which is consistent with the previous results, is that approval rates are seen to be higher than disapproval rates (Table 16). Consequently, it seems reasonable to assume that this also is a robust finding.

The relationship between various types of teacher verbal behaviour and student behaviour was analysed (Tab. 18, Fig. 1). As in previous studies, teacher disapproval to social behaviour was negatively related to students' time on-task and positively related with students' time off-task. A proportion of data points represents classes where high on-task student behaviour was observed regardless the relatively high rate of teacher disapproval (Figure 1). This indicates, as we demonstrated, interplay of other variables with on-task behaviour. Class observation data is "noisy" and characterised by many outlying data points. A multitude of variables operate in classrooms, of which the teacher's verbal behaviour and student on-task behaviour are but two. However, it seems that is more likely to find pupils being on-task and lower rate of teacher criticism for social behaviour in the same lesson.

The methodology of this study allowed for comparisons to be made between the behaviour of both teachers and students in inner city and town and suburban settings. In the event, little variations were found between schools. Students were equally well-behaved and engaged with the curriculum in all settings and teachers seemed to adopt similar styles of interactions with their students. The only exception appeared to be that teachers in inner city schools seem to use more neutral verbal behaviour than teachers in suburban areas.

There was no link made between either teacher verbal behaviour or student on-task behaviour and a number of contextual factors including overall size of school, free school meals, number of adults in class, and time of day.

A weak correlation was found between class size and students' on-task time. This might be related to the fact that sixth formers classes, where the higher on-task rate was found, are usually fewer in numbers. Statistics published as part of the Government's transparency agenda of the Department for Education in 2012 says that in the year after taking an A level or equivalent at Key Stage 5 only two per cent of students go to a school sixth form or sixth form college. This may explain as well the finding, consistent in literature (Sulla et al., 2013), that teacher verbal feedback rates decline as the age of the pupils increases. Classes are fewer in number, activities are different, students are more autonomous, and hence a lower rate of feedback is needed in order to maintain ideal rates of on-task behaviour.

Primarily, the study has shown that there is an important link between the frequency with which teachers verbally interact with the class and on-task behaviour. Disapproval for social behaviour resulted to be the most relevant type of teacher feedback in influencing students' conduct. This finding would confirm that student's disruptive behaviours may be positively reinforced by the teacher's attention, hence that, for some children, negative attention in the form of disapproval is better than no attention at all (Alberto & Troutman, 2012). We ran a logistic regression because we wanted to get a more comprehensive model from which predictions could be made about the likelihood that a class stay on-task for a good proportion of time. As we said, class observation data are usually "noisy" because of the interplay of many variables with students' conduct. Two variables that were not explored in the present study, which might also have been linked with student on-task time were the quality of preparation of teaching materials and lesson planning by teachers, and the cultural expectations (positive or negative) within the school community (teachers, students and parents) relating to academic outcomes. Further research might explore the effect of these variables and others, in order to create a model that could be even more accurate in explaining the largest proportion of variance possible into pupils' conduct in the classroom.

Looking at the accuracy of our model in terms of previsions ($R^2=.30$), we can reasonably say that teacher has a predominant role in maintaining a good level of students' time on-task.

Chapter 3

NATURAL RATES OF TEACHERS' APPROVAL AND DISAPPROVAL IN ITALIAN PRIMARY AND SECONDARY SCHOOLS CLASSROOMS

3.1 Introduction

3.1.1 Education in Italy

Pre-school education

Day care (*Nido*) is available for parents more or less from birth to three. Parents using these services will leave their children there and generally go off to work. The usual hours are 8.00 am to 4.30 pm, but these are flexible to suit the mother. The facility usually works five days per week.

From three to six there are nurseries (*Materna*). Again, the hours are 8.00 am to 4.30 pm but they are extendable to 6.00 pm. These work five days per week. The emphasis of both *Nido* and *Materna* is play.

Primary education

From six to eleven there are primary schools. *Scuola primaria* (primary school), also known as *Scuola elementare* lasts five years. The day starts around 8.30 am and works through to 12.30 pm. Although many schools retain the six-day working week, there are significant numbers that are extending the hours in the day to allow Saturday to be non-working. Some schools offer activities until 4.30 p.m. for three days per week.

Until middle school, the educational curriculum is the same for all pupils: although one can attend a private or state-funded school, the subjects studied are the same (with the exception of special schools for the blind or the hearing-impaired). The students are

given a basic education in Italian, English, mathematics, natural sciences, history, geography, social studies, physical education and visual and musical arts.

Until 2004, pupils had to pass an exam to access *Scuola secondaria di primo grado* (Middle school), comprising the composition of a short essay in Italian, a written math test, and an oral test on the other subjects. The exam has been discontinued and pupils can now enter *Scuola secondaria di Primo Grado* directly.

Secondary education

Secondary education in Italy lasts 8 years and is divided in two stages: *Scuola secondaria di primo grado* (Lower secondary school), also broadly known as *Scuola media*, which corresponds to the Middle School grades, and *Scuola secondaria di secondo grado* (Upper secondary school), also broadly known as *Scuola superiore*, which corresponds to the high-school level.

The *Scuola secondaria di primo grado* lasts three years (roughly from age 11 to 14).

These generally start at 8.00 am and work through until 1.00 pm. Some are offering activities until 4.30 pm. Most work six days per week, a few are extending the hours to allow for a two-day weekend.

The *Scuola secondaria di secondo grado* lasts five years (roughly from age 14 to 19).

The hours are similar to the Inferiore, but there are specialisms for most schools.

Every tier involves an exam at the end of the final year, required to gain a degree and have access to further education.

For historical reasons, there are three types of *Scuola secondaria di secondo grado*, subsequently divided into further specialization. Currently, all of the secondary schools in Italy have most of the structure and subjects in common (such as Italian grammar, history and mathematics), while some subjects are peculiar to a particular type of course (i.e. ancient Greek in the Liceo Classico, economy in the Istituto tecnico economico or scenography in the Liceo Artistico):

- Liceo (lyceum): the education received in a *Liceo* is mostly theoretical, with a specialization in a specific field of studies (humanities, science, or art); less attention is devoted to the technical-practical education.

- Istituto tecnico (technical institute): the education given in an *Istituto tecnico* offers both a wide theoretical education and a specialization in a specific field of studies (e.g. economy, humanities, administration, law, technology, tourism), often integrated with a three/six months internship in a company, association or university, during the fifth and last year of study.
- Istituto professionale (professional institute): this type of school offers a form of secondary education oriented towards practical subjects (engineering, agriculture, gastronomy, technical assistance, handicrafts), and enables the students to start searching for a job as soon as they have completed their studies, sometimes sooner, as some schools offer a diploma after 3 years instead of 5.

These specialisms would prepare students for a career, although it is not mandatory for someone wanting to become a lawyer, for example, to attend a specialist law school at this stage. It would be easier to enter this profession, though, if you had studied the subjects offered at this kind of school.

Any type of secondary school that lasts 5 years grants access to the final exam, called *esame di maturità* or *esame di stato*; this exam takes place every year between June and July and grants access to university.

Note that education is statutory until the age of sixteen. There are students who do not complete the full five years to nineteen in Italy (The information contained in this paragraph was retrieved in Ministry of Education, Universities and Research website: www.istruzione.it).

As for the British Education system (chapter 2), a list with all the different key stages for the Italian Education system is provided in Table 24.

The classifications of education may, superficially appear different, but on closer inspection are remarkably similar to those in the UK. Although formal school may start a year later, the *Materna* offer a full educational day. The time spent in institutional settings in Italy is longer than that found in most UK environments. The clear emphasis on continuity for the fourteen to nineteen age band attests to a focus on making links with work or further study (Arnold, 2009).

Table 24- Key stages for the Italian Education system

Level	Name	Duration	Certificate awarded
Pre-school education	Nido (Day care)	3 years (age: 0 to 3)	
	Scuola dell'infanzia (nursery school)	3 years (age: 3 to 6)	
Primary education	Scuola primaria (primary school)	5 years (age: 6 to 11)	Licenza di scuola elementare (until 2004)
Lower secondary education	Scuola secondaria di primo grado (first grade secondary school)	3 years (age: 11 to 14)	Diploma di scuola secondaria di primo grado
Upper secondary education	Scuola secondaria di secondo grado (second grade secondary school)	5 years (age: 14 to 19)	Diploma di liceo; Diploma di istituto tecnico; Diploma di istituto professionale
	Formazione professionale (vocational education)	3 or 5 years (age 14 to 17 or 14 to 19)	Qualifica professionale (3 years), Licenza professionale (5 years)

Source: (Education in Italy, 2014)

3.2 Behaviourism and the study of teacher behaviour in Italy

In 1942 Virgilio Lazzeroni published a paper in which he claimed that behaviour was the subject matter of psychology. Italian behavioural psychology started to develop in a significant way sometime later, in the second half of the 1960s. The behaviourist tradition is relatively young in Italy, due to the influence of the cultural environment centred on idealistic philosophy. The tree of Italian behaviourism has two roots, which can be labelled *Pavlovian-reflexiological-psychiatric* (a group in Milan), and *Skinnerian-operant-psychological* (shared by three groups in Milan, Padua, and Rome). These groups followed independent routes until the end of the 1970s, when three of them joined in a common path. The residual one followed a cognitive course.

The founding of the Italian Association for Behaviour Analysis and Modification (AIAMC, for its initials in Italian) by the two groups just mentioned in 1977 was particularly influential.

In 1983, for the very first time an Italian group of behaviourists, the historical nucleus of the Institute of Psychology of the University of Messina (Caracciolo, Perini, Larcana, Moderato, Pergolizzi), went abroad to discuss their research and had the chance to meet B. F. Skinner and share their vision with scholars from all over the world.

In 1997, 20 years after the foundation of the AIAMC, the Congress of EABCT (the European Association for Behaviour and Cognitive Therapy) was held in Venice. In view of the fact that people from 39 different countries went to Venice it could be said that it was much more than a simple “European” Congress. Another important landmark in the spreading of behavioural culture in Italy was the establishment in the second half of the 1990s of a series in psychology published by McGraw-Hill Italy and edited by Paolo Moderato and Francesco Rovetto. This series, which in 8 years has now published more than 90 books, is probably the most behaviourally oriented series in Italy and covers topics in different areas including clinical and developmental psychology, verbal behaviour, and OBM.

Two other important milestones marked the maturity “phase” of the Italian behaviouristic history: the first ABA International Convention was held in Venice in 2001 and the first Conference of the European Association of Behaviour Analysis was held in Parma in 2003. Moderato and Presti (2006), presenting the development of behaviourism in Italy, said: “we were particularly honoured when the organizing committees chose Italy for these two founding events, implicitly recognizing the difficult job done in the former 30 years in disseminating the behaviouristic culture and in pursuing original research by Italian scholars.” (p.484)

Other national and international scientific meetings have been organized, and also 4-year postgraduate courses in behaviour analysis and therapy. Almost all of the main books of the behavioural literature have been translated into Italian (e.g. Bijou & Baer, 1978; Martin & Pear, 1996; Skinner, 1976), and a number of original books by native authors have been published (e.g. Larcana, Moderato, Perini, 1984; Moderato, Presti, Chase, 2002; Perini & Bijou, 1993).

In the field of clinical psychology is still fully recognized the expertise of Roberto Anchisi and Fabio Celi who, respectively, deal with Acceptance and Commitment Therapy and adult psychopathology, and developmental psychopathology.

At the present time behaviourism has reached a fairly good critical mass within psychology in Italy although it is still a minority if compared both with the psychoanalytic approach and the systemic approach (Moderato & Presti, 2006).

In those years Italian behaviourists started to take an interest also in issues linked with education, school and learning. In the wake of the studies on teacher behaviour by Mary Hughes (1959), Flanders (1967), and De Landsheere (1974) – probably the germ of the studies on teacher approval -, Graziella Ballanti (1975) wrote a book about teacher-pupils verbal interactions in the classroom. Introducing functional analysis in pedagogical settings Ballanti wanted to investigate the effect of teacher behaviour on pupils' learning. This resulted in a change in perspective from “the behaviour of the teacher” (what teacher does when teaching) to “teacher behaviour”: the set of responses by an organism that produces changes in the form of learning in another organism, either as discriminative stimuli or as reinforcers (Perini, 1997).

In 1977 Paolo Meazzini wrote a book on behaviour modification in the classroom and, as the editor of *Psicologia e Scuola* (Psychology and school), dealt with teacher evaluation. In the same journal, in 1994, Fontana published an article on the analysis of verbal interactions in the classroom.

However, as far as we know, nothing more has been published on teacher behaviour in Italy, nor the natural rates of approval and disapproval have ever been investigated, despite the huge amount of research on this topic in English-speaking countries (Sulla et al., 2013).

3.3 The research

“...if children misbehave then the parents are told, but I had a case where a child was a persistent challenge to the staff and went on a school trip. The child was well behaved on the school trip, but no notice was made of this. When I suggested that the parents might like to hear about this positive act, the teachers simply looked at me in a funny way. But children ought to be able to behave on a school trip, was their response. Teachers here seem not to think about their own contribution to why a child might misbehave. If you ask a teacher to reflect on what they did just before an incident, they

think you are rather odd.” Gail Millership, psychologist working in the North of Italy (Arnold, 2009, p.15).

Whilst a huge amount of research has been carried out over the past forty years in English-speaking countries on the link between teacher verbal behaviour and pupil behaviour, a search of literature revealed only a few studies in this area of inquiry were published in Italy between the 1970s and the 1990s. Yet when it seems to be a critical point – as the declaration we reported in the opening line of this paragraph points out -, no previous studies have investigated the existing rate of teacher approval and disapproval in Italian classes. This study aimed to address this gap in current knowledge and add to the international literature on this subject.

The natural rates of Italian teacher verbal approval and disapproval in both primary and secondary school classrooms were determined and compared with those described by Apter et al (2010) – recoded in British primary schools -, and those reported in study one – recorded in British secondary schools.

3.3.1 Aims

The aims of this study were:

- a) To examine the proportionality of different types of verbal feedback used by teachers in Italian schools;
- b) To examine Italian teachers positive and negative feedback rate in different age-cohorts.
- c) To examine the percentage of time teacher spent giving instructions, explanations and expositions in a neutral tone;
- d) To examine Italian students on-task rates in different age-cohorts.
- e) To examine the relationship between teachers use of verbal feedback and the behaviour of students.
- f) To examine variations in pupils’ conduct due to class size, number of adults in the classroom, overall size of the school.
- g) To examine “time of day” variations in pupils’ conduct and teacher verbal behaviour. Seeing that school day usually finish at 1pm, we investigated differences between

lessons conducted earlier in the school day and lessons conducted later in the school day - usually before and after the mid-morning break.

h) To examine whether teachers' experience (as number of years teaching) is associated with differences both in their verbal behaviour and in students' time on-task.

3.3.2 Method

1) Participants

The experimenter served as the primary data collector. Three undergraduate students and five graduate students in Psychology who were trained by the experimenter (training procedure has been described in paragraph 2.3.3) served as secondary data collectors. A total of 314 observations (134 in primary schools and 180 in secondary schools), the equivalent of 9420 minutes (177 hours), were conducted across the country (Bibbiano, Bologna, Brescia, Caserta, Cremona, Crotone, Medesano, Modena, Parma, Pistoia, Pozzallo, Ragusa, Reggio Emilia, Roma, Rovereto, Spezzano, Verona, Vignola). The schools were allocated in zones that were convenient in logistical terms to the observers, and were fairly representative of the main areas (i.e. north, middle, south, isles) and local types (inner city, suburban, rural/village) of the country.

2) Procedure

The procedure was the same as the one we used in the British study in secondary schools. For the study we carried out in Italy we also used the Partial Time Interval Observation recording sheets for 6 Subjects (PTIObs6s: Apter, 2013). Although we appreciate the improvement in methodology operated by Harrop and Swinson (2000) with the introduction of radio microphones to record teacher responses, we found Italian teachers to be more comfortable with the less intrusive paper and pencil method that we used and consequently more willing to let us enter their classrooms. That may be due to the fact that, unlike British teachers, who are used to inspections by Ofsted, Italian teachers are not so used to being observed. There is no external inspection regime in Italy. Schools are accountable for their administrative processes, but not the teaching or

educational outcomes. School heads can ask for an inspector to examine specific issues in a school, e.g. an underperforming teacher, but this is at their request, not an external, top-down process.

Moreover, using the same observational method for both the British and Italian investigations made the data from the two investigations comparable.

The recording of the teachers' verbal behaviour and the behaviour of the pupils did not start immediately on their arrival in the teaching room. If not, pupils were allowed to come into the room and find their seat. The observers were often introduced to the class who were then told to ignore their presence. Once the class had begun to settle down the recording of the teacher's verbal behaviour and the behaviour of the pupils' behaviour commenced.

When observing the class each observer sat at the back of the room in a position where they could observe all the pupils. In the case of some of the observations, especially the craft lessons in secondary school, the observer was required to move around the room to ensure accurate observation. Detailed instructions on how to use the schedule are contained in Appendices.

In each observation, five students selected randomly were observed. Once students had been observed for one minute in each cycle, the teacher's verbal behaviour was recorded using partial-interval recording.

Observers returned pairs of observations of classes being taught by the same teacher, one in the morning and one in the afternoon (if the school day finished at 1pm, we divided the school day in two: early lessons and late lessons). Class observations were for a minimum of 20 minutes each with a one minute time-interval for each cycle. This meant observers returned observations variable in terms of duration. In order for the observations to be comparable, TPP, SBP, TPC and SBC, scored as raw tallies, were considered as frequencies (tallies/duration of the observation).

3.3.3 Results

The results of this study are presented in the following order:

- a) The proportion of types of feedback provided by teachers to their pupils and the rates of teacher approval and disapproval;
- b) The difference in rate of teacher positive and negative feedback over the year groups;

- c) The percentages of teachers’ neutral verbal behaviour (instructions, explanations, expositions);
- d) The percentage of pupils’ on-task behaviour;
- e) The relationship between the teachers’ use of verbal feedback and the behaviour of the pupils in their classes;
- f) The relationship between pupils on-task behaviour and non-geographical contextual variables (i.e. Class size; Adults present; Number on roll; Percentage of free school meals); (f-1) Students on-task time and teacher verbal behaviour by class size;
- g) A comparison of teacher and students behaviour between morning and afternoon lessons;
- h) The relationship between teachers’ experience (as number of years teaching), teachers’ use of verbal feedback and pupils’ on-task behaviour.

a) The percentages of positive and negative feedback directed by teachers to their pupils’ academic work or social behaviour in primary and secondary schools are presented, respectively, in table 25 and table 26.

Table 25- *Percentages of teacher feedback as assessed in 134 lessons in Italian primary schools*

Behaviour	Approval	Disapproval	Total
Academic	24	19	43
Social	1	56	57
Total	25	75	100

In primary schools, the majority of feedback was of a negative nature and directed in response to pupils’ behaviour (ratio 1:3). Most positive feedback was directed towards pupils’ work and very little to pupils’ behaviour (Tab.25).

Table 26- *Percentages of teacher feedback as assessed in 180 lessons in Italian secondary schools*

Behaviour	Approval	Disapproval	Total
Academic	20	21	41
Social	0	59	59
Total	20	80	100

As in primary schools, in secondary schools, the majority of feedback was of a negative nature and directed in response to pupils' behaviour (ratio 1:4). Positive feedback was directed toward pupils' work, while feedback directed towards pupils' behaviour was very seldom observed (Tab.26).

In terms of the rates of approval and disapproval, in primary school, approval occurred about 16 times every hour; disapproval occurred at the rate of about 49 responses per hour. In secondary school, approval occurred about eight times every hour; disapproval occurred at the rate of about 32 responses per hour. Both approval and disapproval rates seem to decline as the age of the pupils increases.

The difference between Italian and British teachers in terms of proportion of types of feedback provided is self-evident (Tab. 27). In British primary school, the rate of approval is more than double the one recorded in Italian school, while half of disapproval is given compared to Italy; in secondary school the rate of approval is three times higher in the UK than in Italy.

Table 27- Rate of teacher verbal feedback in Italian and British schools

	Primary		Secondary	
	Italy (6-11 years) N=134	UK (5-11 years) N=140	Italy (11-18 years) N=180	UK
Total Approval	.27 per min	0.68 per min	.14 per min	0.43 per min
Total Disapproval	.80 per min	0.43 per min	.54 per min	0.37 per min
Total Feedback	1.07 per min	1.11 per min	.68 per min	0.80 per min

b) Figure 1 plots average rates of teacher positive and negative feedback per minute, by year group. Given that Social Behaviour Praise and Task Performance Criticism were given by teachers at such a low rate, the results were clearer displayed combining praise and criticism. A caution must be noted that there were a disproportionately small number of Year 10 and 12 observations.

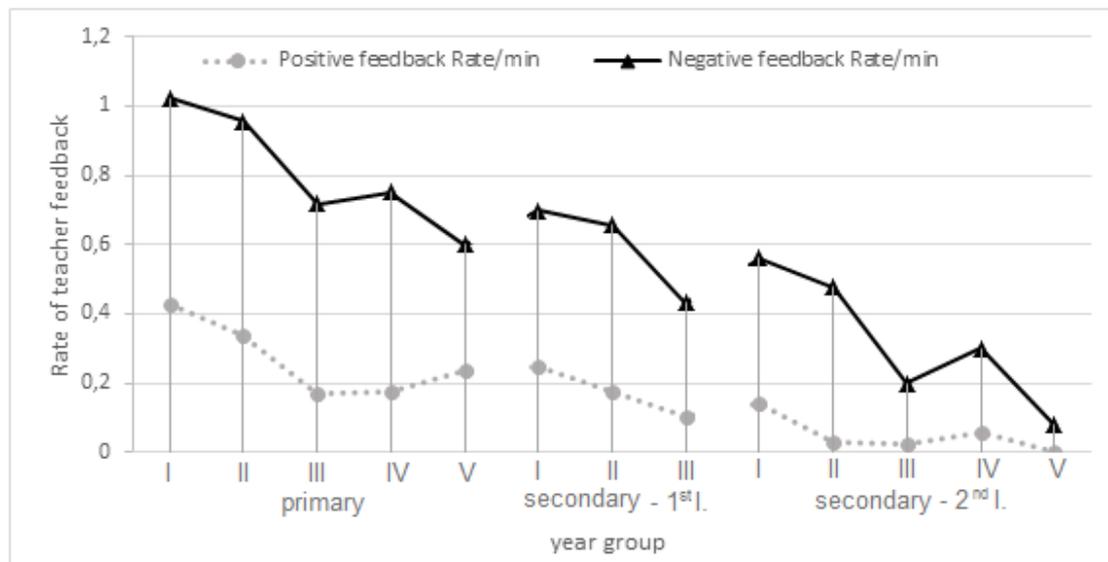


Figure 2- Graph of average rates of teacher positive and negative feedback by year group

Average rate of teacher positive feedback was significantly different over the year groups ($H_{(12)}=73.251$, $p<.001$). Jonckheere's test revealed a significant trend in the data: as older were the pupils, the median positive feedback rate decreased, $J = 11179.500$, $r = -.46$.

Average rate of teacher negative feedback was significantly different over the year groups ($H_{(12)}=70.831$, $p<.001$). Jonckheere's test revealed a significant trend in the data: as older were the pupils, the median negative feedback rate decreased, $J = 11007.500$, $r = -.47$.

Both approval and disapproval rates seem to decline as the age of the pupils increases.

c) The methodology of the studies in which the PTIObs6S was used enabled teachers' use of neutral verbal behaviour to be tallied.

We considered INX as neutrally delivered instructions, academic commentaries or descriptions being given for the first time to groups of students at the beginning of new activities or at transition points by a class teacher.

Primary schools British teachers talk more than the Italian ones, however, the differences was not statistically significant. Secondary school Italian teachers talk significantly more than the British ones ($F_{(1,359)}=21.47$, $p<.001$) (Tab.5).

Table 5- Teacher neutral verbal behaviour (instructions, explanations, expositions: %) in Italian and British primary and secondary schools

	Primary		Secondary	
	Italy N=134	UK ^a N=140	Italy N=180	UK N=180
Mean	26.89	28.15	44.22	36.62
<i>SD</i>	15.60	18.33	20.47	23.48

^a Apter et al., 2010

There was a statistically significant difference in the percentage of teacher neutral verbal behaviour in different age cohorts ($F_{(1,11)}=6.713$, $p<.001$) (Tab.6).

There was a significant linear trend ($F_{(1, 11)}=51.911$, $p<.001$) indicating that as the students grow up, teacher percentage of neutral verbal behaviour in class increased (Fig.3).

Table 6- Italian teacher neutral verbal behaviour by year group

	Year (N)	Mean	SD
Primary (6-10)	I (28)	26.71	15
	II (22)	19.11	11.29
	III (35)	28,18	12.20
	IV (22)	36.14	22.13
	V (27)	24,21	13.59
Secondary (1st level: 11-13)	I (27)	41.87	21,36
	II (40)	42.64	22.57
	III (31)	45.76	21.53
Secondary (2nd level: 14-18)	I (12)	46.91	16.02
	II (14)	50.24	19.22
	III (6)	50	11.69
	IV (7)	32.14	18.82
	V (3)	48.44	2.14
Total (N=274)		35.75	20.18

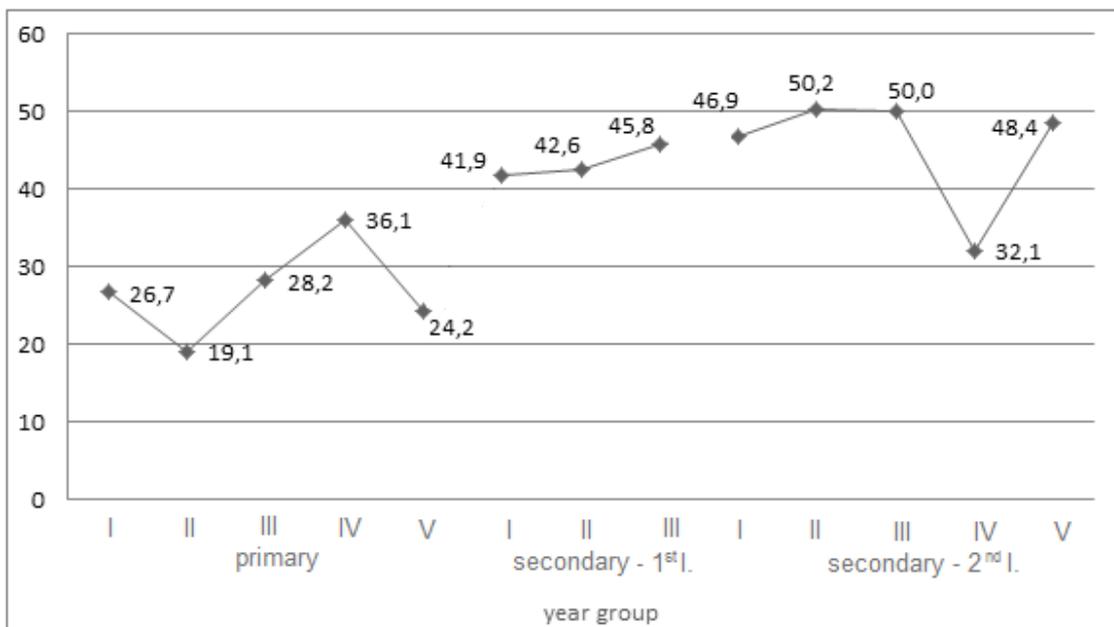


Figure 3- Teacher Instructions Expositions Explanations (%) by year group

d) The behaviour of a small sample of five randomly chosen students in each observation was recorded with a momentary time sampling.

There was a statistically significant difference in the on-task time of pupils in different age cohorts ($F_{(12,261)}=1.839, p<.05$) (Tab.7, 8).

Table 7- Average students' on-task time by year group in Italian primary school

Year group	Mean	SD
I (N=28)	71.33	10.87
II (N=22)	73.41	10.82
III (N=35)	71.96	12.33
IV (N=22)	76.09	10.55
V (N=27)	78.68	12.31
Total (N=134)	74.10	11.68

Table 8- Average students' on-task time by year group in Italian secondary schools

	Year group	Mean	SD
1st level	I (N=34)	78.62	11.62
	II (N=40)	75.87	11.06
	III (N=36)	78.52	12.49
2nd level	I (N=14)	74.96	11.65
	II (N=14)	71.73	10.04
	III (N=14)	84.56	4.49
	IV (N=16)	79.69	6.72
	V (N=10)	83.56	1.39
	Total (N=178)	77.20	11.18

There was a significant linear trend ($F_{(1, 11)}=8.083$, $p<.01$) indicating that as the students grow up, their time on-task increased (Fig.4).

A statistically significant difference was found between primary school Italian pupils' time on-task ($M=74.10$, $sd=11.68$) and British pupils' time on-task ($M=85.11$, $sd=12.12$) ($F_{(1,269)}=58.001$, $p<.001$). Italian secondary school pupils seem to spend less time being on-task, however, the difference between the two groups was not significant (Tab.9).

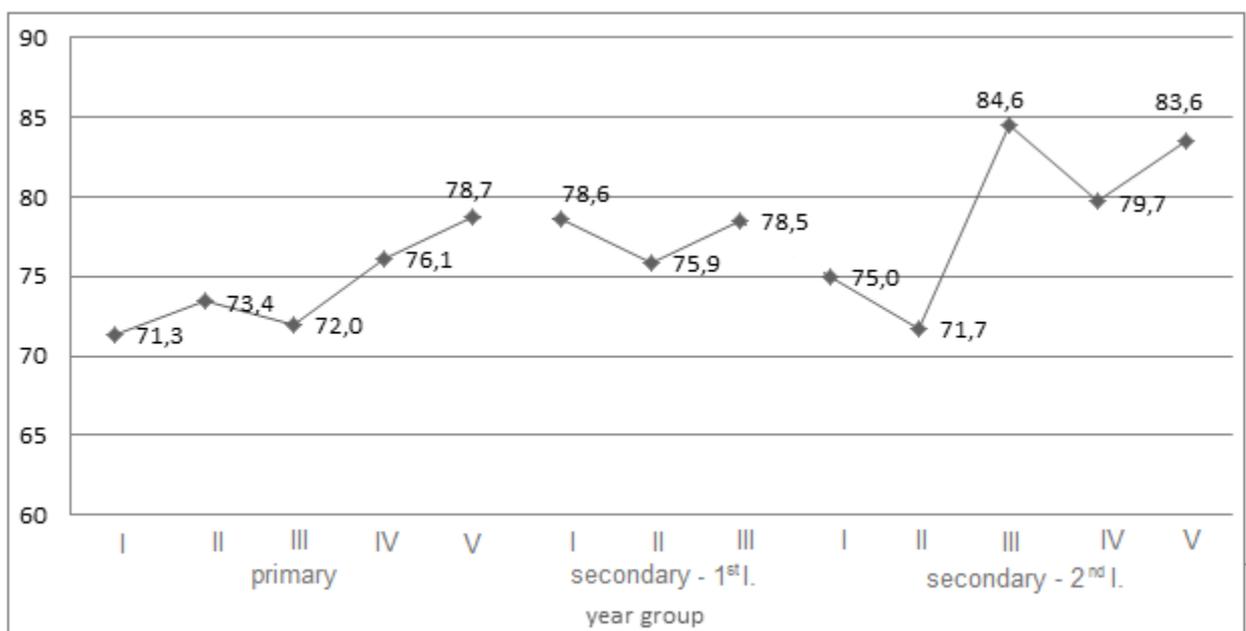


Figure 4- Italian student time on-task by year

Table 9- Students' on-task time (%) in Italian and British primary and secondary schools

%OnTask	Primary		Secondary	
	Italy (6-11 years) N=134	UK ^a (5-11 years) N=140	Italy (11-18 years) N=180	UK (11-17 years) N=180
Mean	74	85	76	78
SD	11.68	12.12	11.14	13.64
Range	45-94	52-100	45-100	39-100

^aApter et al., 2010

e) Central to this study was the nature of the verbal behaviour of teachers in classrooms and the association that there might be with the way children work. The on-task percentage figures were taken as the dependent variable. This was correlated with the frequency of different categories of teacher verbal behaviour.

Table 10- *Correlations between Italian students' on-task behaviour as a percentage of the time they were observed, and rates of teacher feedback*

On-Task	Neutral verbal behaviour	Praise		Criticism	
		Task perf.	Social behav.	Task perf.	Social behav.
	.298***	.011	.018	-.118	-.383***

***Correlation is significant at the 0.001 level (two-tailed)

There was a statistically significant link ($\rho = .298, p < .001$) between the teachers' neutral verbal behaviour (INX), and time on-task (Tab.10; Fig.4). Teachers' neutral verbal behaviour was associated with high on-task rates. This result was similar to the one found by Apter et al (2010) in British primary schools, and supportive of the hypothesis that highly verbal teachers are more successful in keeping students on-task (p.157).

There was a quite strong and statistically significant negative correlation between teachers' rates of disapproval and on-task behaviour ($\rho = -.383, p < .001$). In classes with higher rates of on-task behaviour, there were lower rates of negative feedback (Tab.10; Fig.5).

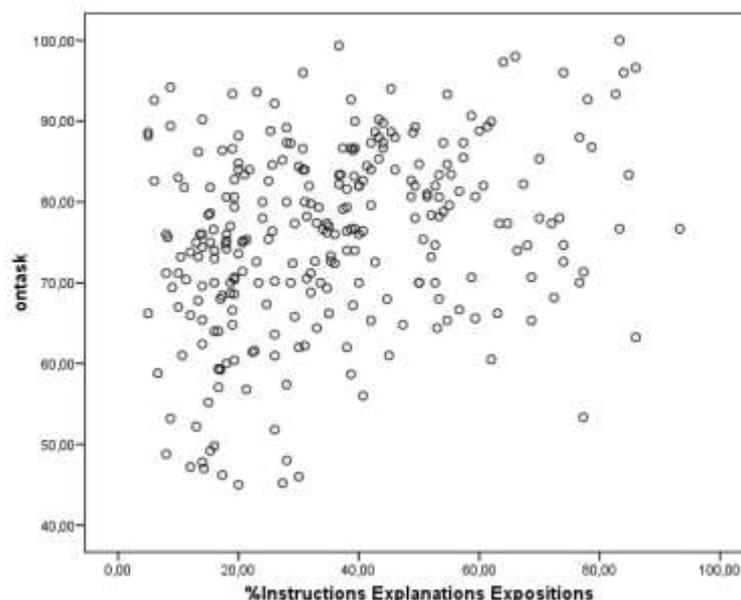


Figure 5- *Neutral teacher verbal behaviour/student on-task behaviour*

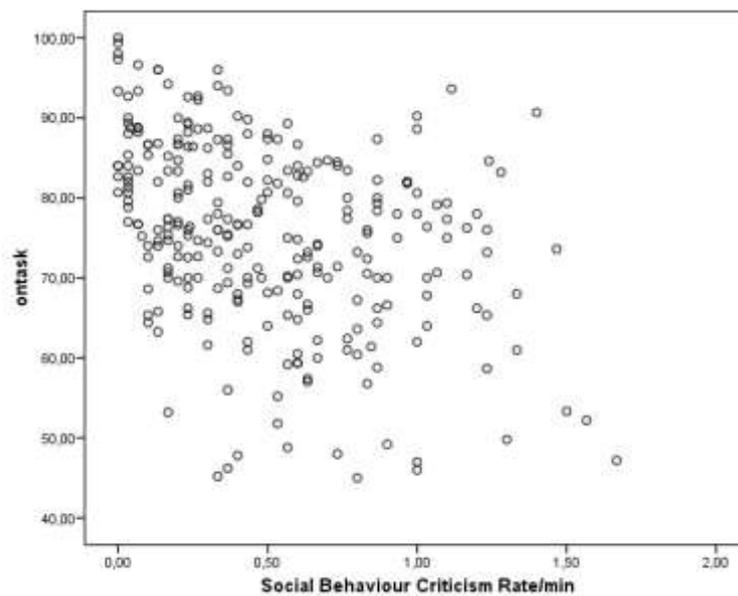


Figure 6- Teacher Social Behaviour Criticism/student on-task behaviour

Table 11 shows these correlations, respectively, in primary (N=134) and secondary school (N=180). In secondary school, the on-task percentage figures and social behaviour criticism share an even bigger portion of variance ($\rho=-.412$, $p<.001$). Weak but statistically significant relationship was found between pupils’ conduct and task performance criticism.

Table 11- Correlations between Italian primary and secondary school students’ on-task behaviour as a percentage of the time they were observed, and rates of teacher feedback

On task	Neutral verbal	Praise		Criticism	
	behav.	Task perf.	Social behav.	Task perf.	Social behav.
Primary	.247**	.098	.140	-.000	-.335***
Secondary	.263**	.004	-.076	-.176*	-.412***

* Correlation is significant at the 0.05 level (two-tailed); ** Correlation is significant at the 0.01 level (two-tailed); ***Correlation is significant at the 0.001 level (two-tailed)

f) Table 12 and 13 illustrate correlations between on-task behaviour and a number of non-geographical contextual variables respectively in Italian primary and secondary schools. Due to the skewed nature of the data, a Spearman correlation was conducted.

There were no statistically significant correlations between any of these contextual variables and student on-task time. An expected correlation was found between the size of class (M=21.15, s.d.=3.61, range 10-29) and the overall size of school (M=393.94, s.d.=108.71, range 48-600) ($r=.356$, $p<.001$).

Table 12- *Correlations between a range of contextual variables and students' on-task behaviour in Italian primary school*

	Class size	Adult present	Roll
OnTask	.099	.060	-.075
Class size	--	-.101	.356***
Adult present		--	-.161

*** Correlation is significant at the 0.001 level (two-tailed)

Table 13- *Correlations between a range of contextual variables and students' on-task behaviour in Italian secondary school*

	Class size	Adult present	Roll
OnTask	-.281**	.013	-.262**
Class size	--	.080	.604***
Adult present		--	.059

** Correlation is significant at the 0.01 level (two-tailed)

*** Correlation is significant at the 0.001 level (two-tailed)

Again, a strong statistically significant relationship was found between class size (M=19.85, s.d.=5.62, range 5-29) and overall size of school (M=293.32, s.d.=3.61, range 62-1200) ($\rho=.604$, $p<.001$).

As in British secondary school, in Italian secondary school there was a significant relationship between class size (as number of pupils that were in class during the observation) and student on-task time ($\rho=-.281$, $p<.01$). It seems that in larger classes there are lower levels of on-task behaviour.

f-1) Given that we found on-task percentage figure to share a discrete portion of variance with the class size, we wanted to see how pupils' behaviour change depending on class size. Furthermore, we investigated how teacher verbal behaviour change depending on class size.

We split class size measure in "small class size" (<25° percentile), "medium class size" (25°-75° percentile), and "large class size" (>75° percentile).

Although pupils' on-task time was higher in smaller classes, the differences between the levels was not statistically significant.

Table 14- Italian students' time on-task and teacher verbal behaviour by class size: Means (SDs)

Class size	On-task	Neutral verbal behav. (%)	Praise (rate/min)		Criticism (rate/min)	
			task perf.	social behav.	task perf.	social behav.
Small N=60	78.12 (12.4)	40.01 (20.2)	.11 (.1)	.01 (.02)	.14 (.2)	.39 (.4)
Medium N=162	75.18 (11.2)	33.99 (20.8)	.22 (.3)	.01 (.03)	.19 (.2)	.52 (.4)
Large N=52	74.39 (10.9)	36.29 (17.8)	.19 (.2)	.01 (.03)	.14 (.1)	.54 (.4)
Total (N=274)	75.67 (11.5)	35.75 (20.2)	.19 (.2)	.01 (.03)	.17 (.2)	.50 (.4)

As regards teacher verbal behaviour, it seems that in smaller classes teacher tends to talk more – however, the difference was not statistically significant -, and give less disapproval for social behaviour ($H_{(2)}=8.575, p>.05$) (Tab.14; Fig.7; 8).

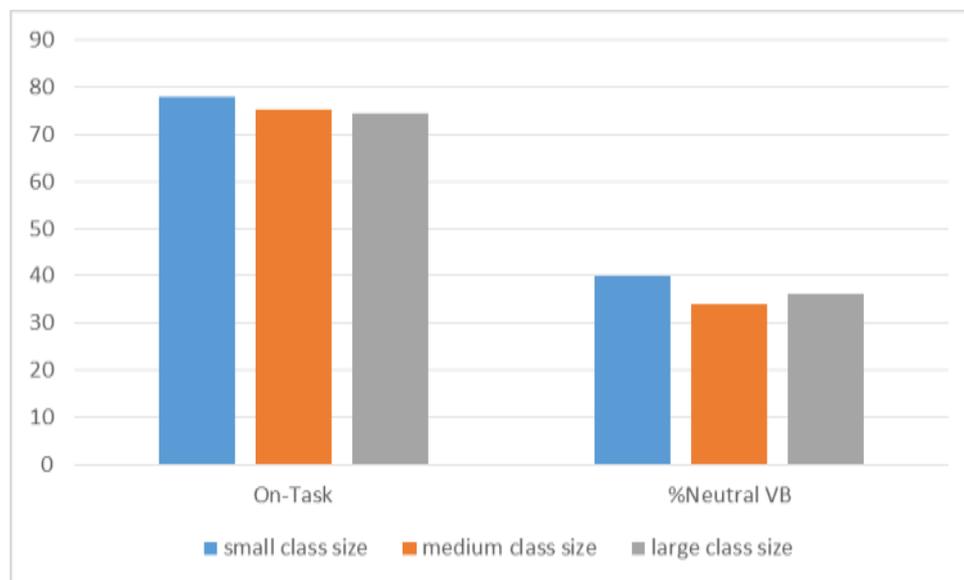


Figure 7- Italian students' time on-task and teacher percentage of neutral verbal behaviour by class size

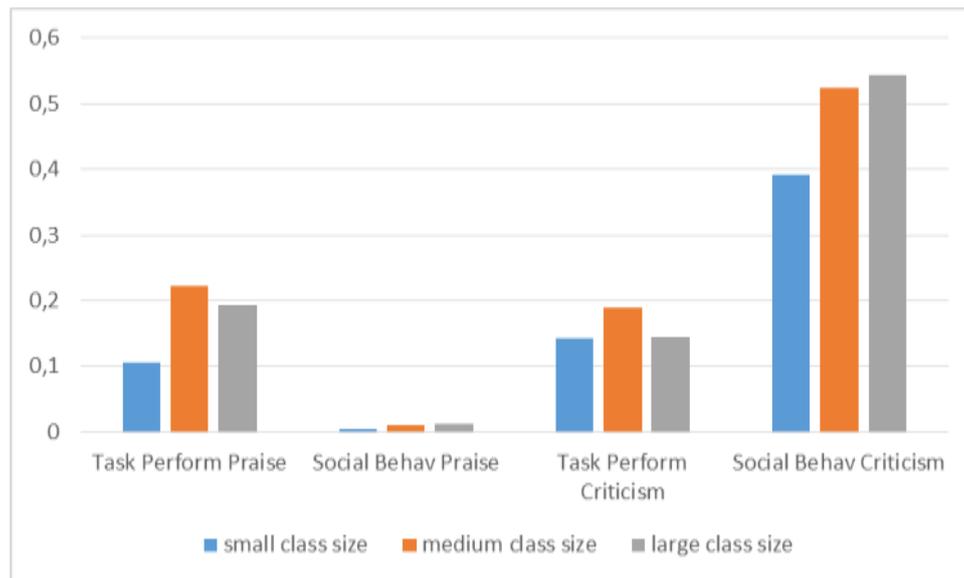


Figure 8- Italian teacher average types of feedback rate per minute by class size

g) The study also considered comparisons of student on-task behaviour (%) in morning (a.m.) and afternoon (p.m.) lessons.

Table 15 compares the percentage rate of on-task behaviour and the rate per minute of different types of teacher verbal behaviour, as they were observed in morning and afternoon lessons in primary school.

Table 15- Comparison of averages for student on-task behaviour (%) and different types of teachers' verbal behaviour per minute, between morning (a.m.) and afternoon (p.m.) lessons in Italian primary school

AM/PM	On-task	Neutral verbal behav. (%)	Praise (rate/min)		Criticism (rate/min)	
			task perf.	social behav.	task perf.	social behav.
a.m. N=67	76.26 (11.9)	26.95 (17.2)	.28(.3)	.02(.04)	.22 (.1)	.56 (.4)
p.m. N=67	71.67 (11.1)	26.82 (13.7)	.22 (.2)	.01 (.02)	.18 (.2)	.64 (.4)
Total (N=134)	74.10 (11.7)	26.89 (15.6)	.25 (.3)	.01 (.03)	.20 (.2)	.60 (.4)

Unlike the British investigation (Apter et al., 2010), we found a statistically significant difference between pupils' on-task time in the morning and afternoon in Italian primary school ($F_{(1,133)}=5.325$, $p<.05$). It seems that pupils tend to spend more time being on-task in the morning (or in early lessons) (Fig.8).

Whilst there was a higher rate of disapproval and a lower rate of approval in the afternoon, the differences were not statistically significant.

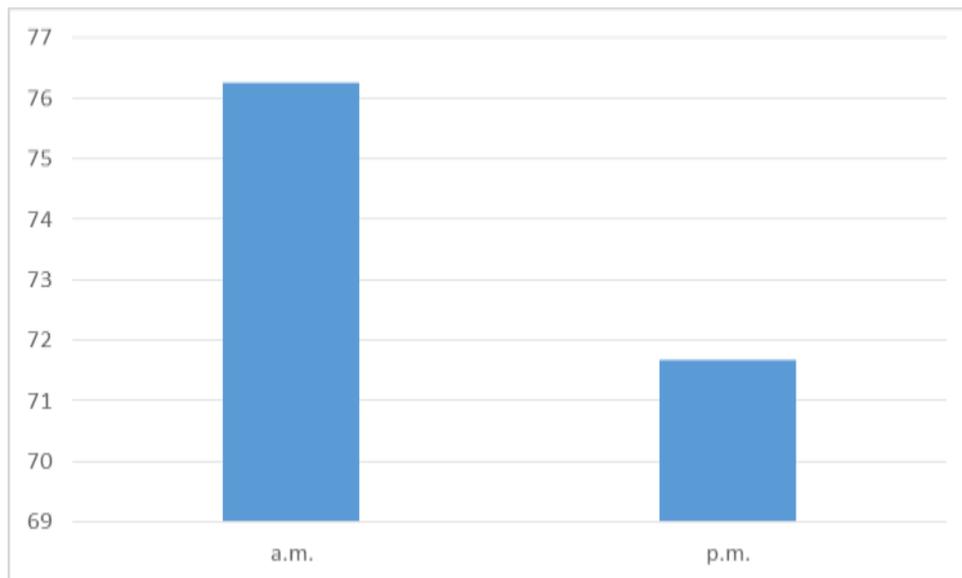


Figure 9- Italian primary school students' time on-task in the morning (a.m.) and afternoon (p.m.)

Table 16 compares the percentage rate of on-task behaviour and the rate per minute of different types of teacher verbal behaviour, as they were observed in morning and afternoon lessons in secondary school.

Table 16- Comparison of averages for student on-task behaviour (%) and different types of teachers' verbal behaviour per minute, between morning (a.m.) and afternoon (p.m.) lessons in Italian secondary school: Means (SDs)

AM/PM	On-task	Neutral verbal behav. (%)	Praise (rate/min)		Criticism (rate/min)	
			task perf.	social behav.	task perf.	social behav.
a.m. N=90	79.94 (11.1)	43.99 (20.7)	.15 (.2)	.00 (.02)	.15 (.2)	.36 (.4)
p.m. N=90	74.41 (10.5)	44.46 (20.4)	.12 (.2)	.01 (.02)	.14 (.2)	.44 (.3)
Total (N=180)	77.18 (11.1)	44.22 (20.5)	.13 (.2)	.01 (.02)	.14 (.2)	.40 (.4)

Unlike the British study, we found a statistically significant difference between pupils' on-task time in the morning and afternoon in Italian secondary school ($F_{(1,179)}=9.126$, $p<.01$). It seems that pupils tend to spend more time being on-task in the morning (or in early lessons) (Fig.9).

Whilst there was a higher rate of disapproval and a lower rate of approval in the afternoon, the differences were not statistically significant.

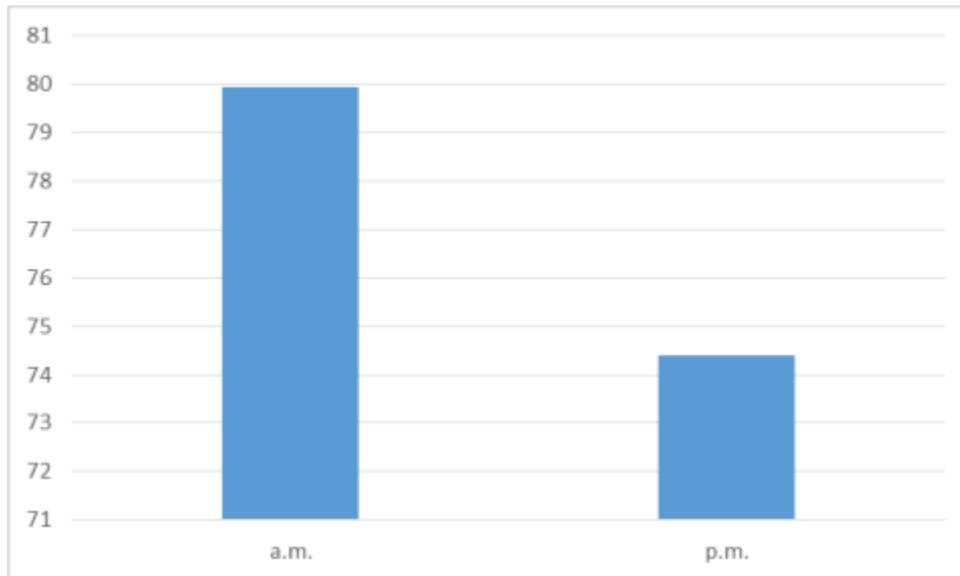


Figure 10- Italian secondary school students' time on-task in the morning (a.m.) and afternoon (p.m.)

h) The relationship between teachers' experience (as number of years teaching), teachers' use of verbal feedback, and pupils' on-task behaviour is displayed in table 17. Teachers in this study had an average number of years teaching of 20.74 (SD=10.48, range 0-40).

Secondary school teachers in the British investigation had a lower average number of years teaching (M=9.65, SD=8.23, range 0-36) compared with Italian secondary school teachers in our sample (M=20.34, SD=11.23, range 0-40). We did not have a comparison with a British primary school sample.

Table 17- Correlations between teachers experience, pupils' on task time, and teacher feedbacks

	On Task	% Neutral verbal behavior	Praise (rate / min)		Criticism (rate/min)	
			Task perf.	Social behav.	Task perf.	Social Behav.
Years teaching	-.041	-.130*	.122	.106	-.175**	-.112

* Correlation is significant at the 0.05 level (two-tailed); ** Correlation is significant at the 0.01 level (two-tailed)

There was a weak but significant relationship between years teaching and percentage of instructions, explanations and expositions ($\rho=-.130$, $p<.05$); as well as between years teaching and Social Behaviour Criticism ($\rho=-.175$, $p<.01$).

i) Demonstrated the degree of association between pairs of the above mentioned variable, we attempted to build a more comprehensive model which could allow us to make some predictions.

We learnt from previous investigations (Sulla et al., 2013) that in secondary school classes we may find an average students on-task time between 70 and 80%. Therefore, we can reasonably say that a class where the on-task rate is attested to be higher than 80% represent the “perfect class”, and that, on the other hand, a class where pupils are on-task for less than 70% of the lesson is one that no teacher would wish to have. On-task rates of less than about 70% are generally considered potentially problematic. More than 90% are extremely high (Arnold, 2009).

We wanted to see which outcome was the most likely between “low on-task (<70%)”, “medium on-task (70%-80%)”, and “high on-task (>80%)”, when the predictors were one factor: moment of the day, and, as covariates: class size, teacher verbal behaviour as percentage of neutral verbal behaviour, and both rate per minute of approval and disapproval.

In our sample, on-task was attested to be higher than 80 per cent in 27 per cent of the observations; between 70 and 80 per cent in 35 per cent of the observations; lower than 70 per cent in 38 per cent of the observations.

The results of a multinomial logistic regression are presented in Table 18.

The top half of table 19 shows the individual parameter estimates for the “high on-task (>80%)” category compared to the “low on-task (<70%)” category. We can interpret these effects as follows:

Class size significantly predicted whether pupils were on task either for less than 70% of the lesson or on-task for more than 80% of the lesson ($b=.18$, Wald $\chi^2_{(1)}=9.31$, $p<.01$). The odd ratio tells us that, as a class size increased by a unit (one pupil), the change in the odds of the pupils being “highly” on-task (rather than being on-task for less than 70% of the lesson) is 1.20: pupils are less likely to be on-task in larger classes. Teacher approval rate predicted whether pupils were on task either for less than the 70% of the lesson or on-task for more than 80% of the lesson ($b=-3.27$, Wald $\chi^2_{(1)}=4.37$, $p<.05$). The odd ratio tells us that, as the rate of approval increased by a unit (about .0167), the change in the odds of the pupils being “highly” on-task (rather than being

on-task for less than 70% of the lesson) is .04: pupils are less likely to be off-task if the teacher gives more approval.

Table 18- multinomial logistic regression results

OVERALL MODEL: $\chi^2(12) = 47.857$, $p < .001$.; Nagelkerke $R^2 = .33$				
PREDICTORS:				
Low on-task (<70%) vs. High on-task (>80%)	B (SE)	Odd Ratio	95% CI	
			Lower bound	Upper bound
Intercept	-3.30 (1.40)*			
Class size	.18 (.06)**	1.20	1.07	1.35
% Neutral verbal behaviour	-.03 (.01)	.98	.95	1
Approval rate/min	-3.27 (1.57)*	.04	.002	.82
Disapproval rate/min	1.98 (.69)**	7.24	1.86	28.19
a.m. vs p.m.	-1.49 (.53)**	.22	.08	.63
Medium on-task (70-80%) vs. High on-task (>80%)				
Intercept	-2.67 (1.07)*			
Class size	.13 (.05)**	1.14	1.04	1.25
% Neutral verbal behaviour	-.004 (.01)	.99	.98	1.02
Approval rate/min	-2.50 (1.28)*	.08	.01	1.02
Disapproval rate/min	1.16 (.59)*	3.18	1	10.08
a.m. vs p.m.	-.46 (.43)	.63	.27	1.47

* $p < .05$, ** $p < .01$

Teacher disapproval rate predicted whether pupils were on task either for less than the 70% of the lesson or on-task for more than 80% of the lesson ($b=1.98$, Wald $\chi^2(1)=8.16$, $p<.01$). The odd ratio tells us that, as the rate of disapproval increased by a unit (about .0167), the change in the odds of the pupils being “highly” on-task (rather than being on-task for less than 70% of the lesson) is 7.24: pupils are much more likely to be on-task if the teacher gives less disapproval.

Moment of the day (either morning or afternoon) significantly predicted whether the pupils were on task for less than the 70% of the lesson or on-task for more than 80% of the lesson ($b=-1.49$, Wald $\chi^2(1)=7.99$, $p<.01$). The odds ratio tells us that as moment of the day changes from morning (0) to afternoon (1), the change in the odds of the pupils being “highly” on-task (rather than being on-task for less than 70% of the lesson) is .22.

In other words, is about 5 times ($1/0.22=4.56$) more likely for a class to be on task for more than 80% of the lesson in the morning than in the afternoon.

The bottom half of table 19 shows the individual parameter estimates for the “high on-task (>80%)” category compared to the “medium on-task (70%-80%)” category. We can interpret these effects as follows:

Class size significantly predicted whether pupils were on task either for a percentage of time between 70 and 80% or on-task for more than 80% of the lesson ($b=.13$, Wald $\chi^2_{(1)}=8.34$, $p<.01$). The odd ratio tells us that, as class size increased by a unit (one pupil), the change in the odds of the pupils being “highly” on-task (rather than being on-task for a percentage of time between 70 and 80%) is 1.14: pupils are less likely to be on-task in larger classes.

Teacher approval rate predicted whether pupils were on task either for a percentage of time between 70 and 80% or on-task for more than 80% of the lesson ($b=-2.50$, Wald $\chi^2_{(1)}=3.79$, $p<.05$). The odd ratio tells us that, as the rate of approval increased by a unit (about .0167), the change in the odds of the pupils being “highly” on-task (rather than being on-task for a percentage of time between 70 and 80%) is .08: pupils are less likely to be off-task if the teacher gives more approval.

Teacher disapproval rate predicted whether pupils were on task either for a percentage of time between 70 and 80% or on-task for more than 80% of the lesson ($b=1.16$, Wald $\chi^2_{(1)}=3.86$, $p<.05$). The odd ratio tells us that, as the rate of disapproval increased by a unit (about .0167), the change in the odds of the pupils being “highly” on-task (rather than being on-task for a percentage of time between 70 and 80%) is 3.18: pupils are much more likely to be on-task if the teacher gives less disapproval.

In conclusion, it seems that students in Italy are more likely to be on-task in smaller classes, during early lessons and when their teacher gives them more approval and much less disapproval.

3.3.4 Discussion

To summarise results that have been obtained in this study:

a) The proportionality of different types of feedback used by Italian teachers appears to be more similar to the one found in the earlier investigations carried out in the 1970s

(e.g. White, 1975; Heller & White, 1975; Thomas et al., 1978), than to the pattern found in studies from the 1980s to date. Students received more total teacher disapproval in every grade; for social behaviour, teacher disapproval far outweighed teacher approval, the latter being almost non-existent.

b) As regards teacher verbal behaviour:

Both approval and disapproval rates per minute seem to decline as the age of the pupils increase;

Neutral verbal behaviour, as percentages of instructions, expositions, and explanations delivered in a neutral tone, increase as the age of the pupils increases.

c) Italian students' time on-task seems to increase as their age increases.

d) We found Italian students spend less time being on task in school compared with their British peers of all ages.

e) There was a statistically significant positive relationship between student on-task behaviour and teacher neutral verbal behaviour, and, symmetrically, a statistically significant negative relationship between off-task behaviour and teacher neutral verbal behaviour.

There was a negative statistically significant relationship between student on-task behaviour and teacher Social Behaviour Criticism, and, symmetrically, a positive statistically significant relationship between off-task behaviour and teacher Social Behaviour Criticism.

f) In secondary school, there was a statistically significant negative relationship between the class size (as number of students that were in class during the observations) and students' time on-task. In smaller class teacher tends to give less disapproval for social behaviour, and pupils tend to be more on-task.

g) Italian students of all ages tend to be more on-task in early lessons than in late lessons.

These findings were obtained from the very first investigation into the natural rates of teacher approval and disapproval in Italy. We feel that these findings may add to the international literature on this subject, and, hopefully, be food for thought to Italian educational psychologists and everybody who deals with education in this country. Some results were unexpected some were not. Either way, we believe we contributed to

the enhancement of knowledge in this field: replacing anecdotes with data is indispensable in order for us to base decisions on scientific evidence.

As everybody working in education in Italy would probably say, the pattern of feedback given by teachers was as expected. This pattern of behaviour may have its roots in our cultural heritage. Italian teachers trained during the 1970s and 1980s are usually devoted to Piagetian theories or Montessori educational method when it comes to pedagogy. On the other hand, teachers have never been keen on what Skinner said about education and have always linked reinforcement and behaviourism to working with animals and controlling behaviour. The current Italian teaching staff is mainly made up of those teachers – whilst average years teaching in the British sample was 9.65, average years teaching in the Italian sample was 20.34. Techniques based on approval and positive reinforcement in general have been, and continue to be basically ignored and misunderstood. Explanations for this misunderstanding may be grounded in a basic cultural ethos: The perception of living in a society in which individuals are free to do as they wish - as long as they do so in a socially appropriate manner - without coercion. In this context, coercion is simply the absence of external pressure - being internally motivated to behave well. This societal value contributes to the widespread acceptance of a punishment mentality that ignores data indicating the effectiveness of techniques based on positive reinforcement (Maag, 2001). Techniques based on positive reinforcement are often perceived to threaten individuals' freedom as autonomous human beings. The functional definition of positive reinforcement frequently does not help some teachers get past the stereotypical notion that it is a manipulative tool created to coerce students into behaving appropriately. Consequently, reinforcement continues to be viewed by some educators as synonymous with bribery, undermines students' abilities to become self-directed, and represses internal motivation (Kohn, 1993). Ironically, punishment, which is the opposite of positive reinforcement, appears much more acceptable because of the perception that it does not threaten individuals' autonomy - people believe they are free to choose to behave in responsible ways to avoid punishment (Maag, 1999). Furthermore, many teachers and parents wrongly assume the terms "discipline" and "punishment" are synonymous. As well as being perceived as less coercive than positive reinforcement, punishment is also viewed as a highly effective way for society to control its members. This view was expressed

several centuries ago by Machiavelli (1903, 1935) (another cornerstone in the Italian culture) when he discussed the attributes of controlling men: "it is much safer to be feared than loved [...] for they are entirely yours; they offer you their blood, their goods, their life, and their children" (p. 90). A punishment paradigm has evolved, and been advocated for, since biblical times and is reflected in the proverb "spare the rod and spoil the child". Besides having history on its side, a punishment mentality has been perpetuated for the simple reason that punishing students has traditionally been highly reinforcing to teachers. As we pointed out in the first chapter, disapproval often can produce a rapid - although often temporary - suppression in most students' inappropriate behaviours.

Generally the proportionality of different types of feedback used by Italian teachers appears to be more similar to the one found in the earlier investigations carried out in the 1970s (e.g. White, 1975; Heller & White, 1975; Thomas et al., 1978), than to the pattern found in studies from the 1980s to date. Among other variables, forty years of literature on the effect of teacher approval in their language at the immediate disposal of teachers and educators in English-speaking countries, may well have made the difference in changing this pattern.

We investigated the link between both teacher verbal behaviour or student on-task behaviour and a number of contextual factors, including size of class, number of adults in class, and time of day. Anecdotally, many teachers report that children behave in a less compliant way in the afternoon and that smaller classrooms are easier to manage. Our results suggest that this view may be evidence-based: it seems that students in Italy are more likely to be on-task in smaller classes, during early lessons. Declining attention after lunch may be normal. A smaller number of students may well be easier to manage for teachers, usually asked to teach to classes with 25-30 children.

As regards teacher verbal behaviour: we found that both approval and disapproval rates per minute declined and neutral verbal behaviour (instructions, expositions, explanations) increased as the age of the pupils increases. There was a clear difference between primary school and secondary school teachers. The reason for this difference may be the fact that a profound conviction remains in Italian schools whereby relational, educational, psychological competences, - hence skills of classroom management - are important for teaching small children, but much less so for teaching secondary school

pupils, where a good knowledge of the subjects to be taught would be more than sufficient (Ostinelli, 2009). Therefore, teachers in secondary school spend a lot of time talking in order to transfer knowledge to pupils. This may also be seen, of course, as an “adjustment” to pupil’s skills and capabilities – a six-year-old would not be able to follow a lecture on the work of Dante or Shakespeare.

It is of consolation that, after a 3-year gap following the shutdown of the SSIS (Specialization School for Secondary teaching, was closed in 2009 at the end of its 9th cycle) initial teacher education for secondary school teachers in Italy has been revived. A new programme known nationally as *Tirocinio Formativo Attivo* (TFA), i.e. Active Educational Training, was activated in July 2012. The novelty of the TFA programme lies in the fact that for the first time courses are entirely planned and implemented by universities. Furthermore, regional schools host trainees for teaching practice, observation and active participation in classroom activities under the supervision of a tutor/mentor. Among other topics, TFA foresees training on classroom management and teaching methodologies (Pulcini, 2014).

We have also seen that students’ time on-task increased as their age increases. This may be explained both from a developmental perspective: as children develop, their self-regulatory skills become more sophisticated (Blair & Diamond, 2008), and from an educational perspective: throughout the years, children’s classroom experience increase. As we saw, teacher feedback is fundamental in children’s classroom experience. Yet, while causality between teacher behaviour and student behaviour cannot be established, a strong relation between teacher approval and disapproval and students’ time on-task has been demonstrated, even in secondary school. Indeed, the fact that British teachers give more approval and much less disapproval compared with the Italian colleagues, may be the reason why British students spend more time being on-task compared to their Italian peers.

As in previous studies, teacher disapproval to social behaviour was negatively related to students’ time on-task. Again, one must be cautious in assuming a causality. However, the fact that low levels of disapproval were recorded in classes with high on-task rates is hardly surprising. If pupils are getting on with their work, then there is no need to tell them off. Alternatively, if they are off-task then one would expect a higher rate of disapproval. This explanation is of course one that portrays the teacher in a very passive

role responding to the pupils' behaviour rather than attempting to change behaviour through use of feedback. Brophy (1981) makes this point at some length. Whatever the explanation, one thing is perfectly evident from the data, if teachers want to improve the behaviour of pupils repeatedly telling them off is not a strategy that according to this data is likely to work. Furthermore, several experimental studies on teacher training into the use of approval showed pupil on-task behaviour increasing with higher levels of teacher approval (e.g. Swinson & Harrop, 2001, Swinson & Harrop, 2005).

This is why encouraging teachers to become more positive in their responses to pupils behaviour was the main purpose of a training aimed at helping Italian teachers become better classroom managers we present in the next chapter.

Chapter 4

AN EXAMINATION OF THE EFFECTS OF A SHORT COURSE AIMED AT ENABLING TEACHERS IN AN ITALIAN PRIMARY SCHOOL TO ALTER THE VERBAL FEEDBACK GIVEN TO THEIR PUPILS

4.1 Introduction

During a conversation I had with one of my British mentors and dear friend, he offered to me his personal insight into the Italian education system and the ways they have to manage pupils' problem behaviour. Dr Christopher Arnold is a senior educational psychologist and chair of the division of Educational and Child Psychology of the British Psychological Society. He has well established links with Italy. His family moved to Italy when he was young and he attended an Italian school for a year, learning the language. Practically every summer has been spent in Italy. He developed links with the Marches and worked in the area, having established an exchange programme for teachers in a West Midlands local authority. In 2009, he spent his sabbatical in Italy in order to write a report on school inclusion (Arnold, 2009). The report was intended to contribute to the debate in the UK surrounding ways of improving social and educational inclusion by illuminating a system which appears to have removed school exclusion in Italy for more than a generation - in 1977 the Italian government passed Law 517. This closed all special schools, units and other non-inclusive provision. This law is still in force and subsequent amendments have actually strengthened the inclusive nature of the Italian education system (Cornoldi, Terreni, Scruggs, & Mastropieri, 1998). Not only did this close segregated educational facilities for children with a range of disabilities, but also it removed the possibility of exclusion from school as a corrective sanction.

Dr Arnold had the chance of looking inside the Italian system. That is what he said about “consequences” in Italian school:

“Within the classroom the most common corrective measures were similar to those found in the classes in the UK. Teachers used “the look”: this involves fixing attention on a child by looking directly at them. Teachers also used physical proximity, by placing themselves next to a child who was not attending. There were also direct comments telling children not to do certain things (like talk to a neighbour). There were no apparent uses of points or rewards systems (i.e. Token Economy) in the classes observed, nor in the schools studied.

In cases of more serious behavioural difficulties in school in Italy there was a sequence: The class council would meet. This comprises all the teachers and support staff involved with the class and representation from the class members. One outcome could be to talk to the parents of the child concerned. If this is unsuccessful the pupil might be sent home for three or four days (fixed term exclusion). This is described as a method to re-engage with the parents. A further corrective measure is to be sent to the school head. The extreme measure would be to mark the event in the register. This would count against the pupil at the end of the academic year.

The rewards and corrections are built in to a points system. At the start of an academic year each student has 10 points. If there is a significant behavioural transgression the student loses a point. If the student fails an exam at the end of the year, the student loses a point. If at the end of the year the student has less than six points, they have to repeat that year. Behavioural transgressions are recorded in the class register. (Although there are no cases at the school visited, there is a national figure of 1.1% of students who are retained outside their year group as a result of purely poor behaviour.)

Other responses to significant behavioural transgressions are fixed term exclusions. These might be for one, two or three days (there is a legal limit of fifteen days). At the end of the exclusion the student returns to school with the parent. If the transgression is less severe, the class council might meet and decide to send a letter home to the parents. There are processes to support students who have some kind of difficulty.”

Dr Arnold also conducted semi-structured interviews with a range of interested stakeholders. The head teacher of secondary school explained:

“If a student presents difficult behaviour in school we take the view that they were not born that way, but are reflecting difficulties in their lives. Our usual approach is to engage with the family. We do have a centre within the school which offers assistance,

including counselling. Additionally we have a range of support systems for children who are struggling. These are widely used. If there is a particularly difficult pupil, or group of pupils then we would look at the class lists and allocate these children in such a way as to minimise the difficulties. This would include selecting the right teachers for the class. Our systems in school include the class council. This is a meeting of all the teachers, assistants, and other adults who have contact with the class and there is representation of the students. If a difficulty arises, the council will meet and decide what to do. This might include a short period of suspension for the student (2/3 days) to allow time for the parents to come to the school and discuss the situation.”

The head of another school attributed misbehaviour differently:

“Our main behavioural problems stem from the relationships that students have with their teachers. We do have teachers here who are not skilled at managing groups and there are groups of youngsters in classes who are very problematic.”

Dr Arnold said:

“There was no mention of any application of behavioural psychology in the classrooms or schools.”

In a discussion with a psychologist working in the North of Italy she noted:

“The teacher training offered here is very poor and doesn’t cover handling of different children with different needs. There would not be any system of using rewards systematically to improve a child’s behaviour. If children misbehave then the parents are told, but I had a case where a child was a persistent challenge to the staff and went on a school trip. The child was well behaved on the school trip, but no notice was made of this. When I suggested that the parents might like to hear about this positive act, the teachers simply looked at me in a funny way. But children ought to be able to behave on a school trip, was their response. Teachers here seem not to think about their own contribution to why a child might misbehave. If you ask a teacher to reflect on what they did just before an incident, they think you are rather odd.”

4.2 State of the art

The ability of a teacher to deliver lessons effectively can be detrimentally effected by student misbehaviour. For example, an individual's teaching ability may deteriorate if they are experiencing troublesome student behaviour and are not sufficiently skilled in classroom behaviour management. This theory is supported by Billingsley (1993) who proposed that teachers who continually experience behaviour problems in their classrooms may believe they are ineffective at working with children. Student misbehaviour is often identified as the main cause of teacher stress (Fraser et al., 2000). Research has also identified that students' troublesome behaviour may impact upon teachers to the point of burnout: a syndrome characterised by emotional exhaustion and decreased personal accomplishment (Evers, Gerrichhauzen, & Tomic, 2000). Evers and his colleagues also note that those affected by burnout are often unable to continue working. Teachers must be aware of, and appropriately address, potential burnout situations in order to avoid feelings of dissatisfaction, fatigue and anxiety, which they may then negatively associate with their profession. This suggests that if troublesome behaviour in the classroom is reduced or eliminated via better behaviour management, teachers will experience less stress. As Witzel and Mercer (2003) point out, classroom disruptions use up valuable learning time. This suggests troublesome student behaviour impacts on learning opportunities and potential achievement levels of other students. For example, talking out of turn interferes with attending to assigned work, or the teacher, and generally being on-task. This behaviour can therefore be identified as a threat to student learning as being on-task is necessary for effective learning to occur (Heering & Wilder, 2006; Emmer & Stough, 2001). According to Stallings (1980), research during the 1970s had convinced educators that an increase in student achievement would occur if student time on-task is increased. Peters (2004) comments that "time on task is the most influential factor in student achievement" (p. 38). It is proposed that increased education and awareness about classroom behaviour via the application of research-based classroom and behaviour management strategies may enable teachers to accurately and appropriately identify troublesome student behaviour and manage these behaviours more effectively. Strategies aimed at increasing teacher rates of approval have been shown to be effective in decreasing students' inappropriate

behaviours and increase their appropriate behaviours (e.g. Silvestri, 2004). In this way, student on-task behaviour is more likely to increase together with levels of student learning and success.

It was argued by Becker, Madsen, Arnold and Thomas (1967) that unless teachers can manage classroom behaviour effectively, their technical teaching skills are wasted. In order to ensure that teachers are sufficiently skilled so that their time in class is used most effectively and efficiently, the acquisition and ongoing development of classroom management techniques must be promoted.

4.2.1 Training teachers to use the behavioural approach to classroom management

Behavioural interventions in school classrooms began to make an impact in the 1960s, one of the most influential of the early publications being that of Madsen, Becker and Thomas (1968) in the USA. Their investigation employed a clear statement of classroom rules, praise given to appropriate behaviours and ignoring given to inappropriate behaviours. Classroom observations showed this package of treatment improved the classroom behaviour of the pupils. Research using similar methods followed. Most of the published work detailing behavioural interventions describes work conducted with a small number of teachers to improve some aspect of their pupils' performance (Silvestri, 2004). The main focus of the work has been concerned with reducing disruptive behaviour in the classroom and increasing on-task behaviour, although there are a few exceptions, for example, Harrop and McCann (1983; 1984), who were concerned with 'reading attainment' and with 'creative writing,' while, Panagopoulou-Stamatelatou and Merrett (2000) were concerned with 'independence and fluent writing.' The methodology normally includes the recording of the behaviour of pupils and teachers by observers situated in the classroom, although again, there are exceptions, for instance, Nicholls and Houghton (1995), who used video recordings of lessons.

One of the most important features of such behavioural investigations is that teachers are encouraged to increase positive feedback to their pupils contingent upon required behaviour and to decrease negative feedback. As we saw in chapter two, in the early days of behavioural interventions, there appears to have been a considerable imbalance

between teachers' use of positive and negative feedback (e.g. White, 1975; Thomas et al., 1978). More recently, however, investigators have found a reversal of that situation, with more approval than disapproval being given (Harrop & Swinson, 2000; Apter et al., 2010). When they analysed their data more closely, however, the latter two investigations found very much more approval was given to academic behaviours than to social behaviours, a feature White (1975) had also noted earlier.

As well as articles concerned with accounts of interventions or surveys of current practice, there have been a few articles on the training of teachers in the use of behavioural interventions. In one of the earliest publications, Harrop (1974) described a course of six weekly or fortnightly meetings, each of two hours' duration, with a group of teachers. During the course, the teachers were each encouraged to undertake interventions with one of their pupils in order to increase appropriate behaviour and decrease inappropriate behaviour. Of the 16 teachers who attended the first meeting, eight completed studies. Seven of the studies were reported as successful, although success was evaluated merely in terms of the teachers' own observations.

Later, Wheldall *et al.* (1985) evaluated "BATPACK", described as a skill-based package for training teachers. Six primary school teachers were trained using "BATPACK" during six weekly one-hour sessions, with reading assignments between sessions. The results of their interventions with their classes showed that the percentage on-task behaviour of their pupils increased from a mean of 75 to 84, compared with a control group of five teachers whose mean on-task scores went from 74.80 to 68.80 over the same time period. The teachers' mean positive responses to their pupils increased. Mean negative responses remained more or less unchanged, while for the control group, rather surprisingly, mean negative responses more than doubled during the same time period.

Another training programme which received considerable publicity was the American programme "Assertive discipline" (Canter & Canter, 1976; 1992). Like "BATPACK", it is based on behavioural principles. It requires six hours of training and includes many examples of good practice shown to teachers on video. The effectiveness of the programme has been demonstrated by a number of evaluative studies, most notably those of Nichols and Houghton (1995), Swinson and Melling (1995) and Woods, Hodges and Aljunied (1996). Each of these three studies reported that after training

there was an increase in teachers' positive responses to pupils and a decrease in negative responses to pupils, together with increased pupil on-task behaviour.

In each of the interventions described there has been a considerable investment of time. The investigation described by Swinson and Harrop (2005) was the result of an attempt to produce similarly successful outcomes while decreasing the investment in training time. A group of teachers took part in a brief, one session in-service course, in which they were trained in behavioural techniques with the main aim of helping them increase their rates of approval contingent upon required behaviours from their pupils and to decrease their rates of disapproval. The training took place in an evening and lasted approximately two and a half hours. There were two major elements in the training: feedback to the teachers based on a preliminary analysis of the pre-training lessons, and a Power-Point presentation 'Managing behaviour—four essential steps'. From observations taken before and after training, it was seen that the main aim was achieved. Teacher showed increased levels of approval contingent upon required behaviour and decreased levels of disapproval, these changes being accompanied by increased pupil on-task behaviour.

Sulla and Perini (2013) conducted what probably may be considered the first study in this field of research in Italy. Only two elementary teachers and their classes participated in the study. This study evaluated the effects of cueing system and visual performance feedback (VPF) on teacher use of approval. In addition to receiving audio cueing as a prompt to provide positive attention to students, a visual display was provided in their classrooms, which showed to the teachers their rates of approval and disapproval. Teacher behaviour was monitored via a changing criterion design. The results indicated that cueing system and VPF resulted in a decrease in teacher disapproval. Additionally, students' time on-task increased.

Yet, when it seems to be a critical point – as the declaration we reported in the introduction to this chapter points out -, apart from Sulla and Perini (2014), there is a general lack of research in Italy about teacher training into the use of approval in classroom. This study aimed to add to the literature on this subject.

4.3 The research

4.3.1 Aims

The aims of this study were:

- i) To examine the effect of training teachers to alter their verbal feedback and become more positive.
- ii) To examine the effect that changes in teachers' verbal behaviour has on the on-task behaviour of the pupils in each class.

Furthermore:

- i) We wanted to see whether any changes in teacher use of feedback would have had an effect on their job satisfaction and self-efficacy.

4.3.2 Method

1) Participants

In this investigation, staff from a primary school in a region in Northern Italy took part in a training study. The sample consisted of 32 primary school teachers (2 males and 30 females) aged between 33 and 62 years ($M = 46$, $SD = 7.46$). The teachers in our sample were all tenured teachers with a number of years teaching which goes from four to 40 ($M = 16.63$, $SD = 8.81$); 41.7% have an high school diploma, 54,2% have a degree, 4,2% did not reported their title.

The whole staff was part of the original phase of the investigation aimed at examining the natural rates of teacher approval and disapproval in Italian school. After that, they took part in a one-hour meeting during which they received feedback on the initial set of observations. Sixteen out of thirty-two teachers volunteered to took part in the training. The whole staff took part in the second set of observations. Therefore, the teachers who took no part in the training were considered the control group.

2) Instruments

a) MESI

Three out of the six questionnaires contained in the MESI (Motivazioni, Emozioni, Strategie e Insegnamento, i.e. Motivations, Emotions, Strategies and Teaching) battery of tests (Moè, Pazzaglia, & Friso, 2010) were used to investigate teachers' job satisfaction, self-efficacy, and the use of a series of praxis (mainly about classroom management), before and after the training.

Job satisfaction and self-efficacy

A large body of findings attests the positive influence that both self-efficacy beliefs and job satisfaction exert on performance in a variety of settings, including schools (Bandura, 1997; Cranny, Smith, & Stone, 1992; Judge, Thoresen, Bono, & Patton, 2001; Ostroff, 1992). It seems that teachers with high self-efficacy beliefs are more likely to manage classroom problems (Chacon, 2005; Korevaar, 1990), and to keep students on task (Podell & Soodak, 1993).

Job satisfaction was evaluated via a five items questionnaire (e.g. "my job conditions are excellent") which employs a Likert-type rating scale with end points of one and seven (1 = Strongly disagree, 7 = Strongly agree).

Self-efficacy was evaluated via a 24 items questionnaire, which was the Italian translation of a questionnaire by Tschannen-Moran and Hoy (2001). The questionnaire measured teacher's self-efficacy perception in several situations linked with teaching and classroom management (e.g. "I feel I can encourage students to think critically"; "I feel I can manage a disruptive student"). Responses are made on a Likert-type rating scale with end points of one and nine (1 = Not at all, 9 = Very much).

Praxis

The questionnaire measured the frequency with which the teacher apply a series of praxis when teaching. The questionnaire foreseen 25 items (e.g. "I do positively

reinforce student's effort and good results", "I do encourage students when they experiment failure"). Responses are made on a Likert rating scale with end points of one and five (1 = Never, 5 = Always).

b) Social Validity

Social validity refers to the degree that behaviour-change efforts impact favorably upon consumers (Shwartz & Baer, 1991).

To assess the social validity, a 10 items questionnaire was created by the experimenter (see Appendix 6 for the version we used, and appendix 7 for the English translation of it) which employed a Likert rating scale with end points of one and five (1 = Strongly disagree, 5 = Strongly agree). The questionnaire was administered in paper/pencil format.

The teachers who took part in the training were polled regarding their perceptions of the training's social relevance, including the acceptability of its goals, procedures, and outcomes.

3) Procedure

A letter was sent to the head teacher (see Appendix 2) presenting the project. The head teacher allowed observations to be made in the school.

The initial set of observations took place in school three weeks prior to the training and represented the pre-test measure. One week after the end of the initial set of observations and ten days prior to the training, the whole staff took part in a one-hour meeting during which they received feedback on the observations. The second set of observations of each teacher took place between three and five weeks after the training, at the same time and day of the week, and represented the post-test measure. The lesson content of course varied but all lessons were of a similar type in terms of organisation and structure.

A comparison was made between the behaviour of both teachers and pupils in classes where teachers had had the training and classes where teachers had not had the training.

The methods for both the recording of the teachers verbal behaviour and the recording of the pupil behaviour was exactly the same as that used in the previous studies outlined in detail in the previous chapters.

Questionnaires on job satisfaction, self-efficacy, and use of praxis, were administered to the teachers both, during the first observation (pre-test), and one week after the post-test – between four and six weeks after the training. Thus, a comparison was made between the scores in the three scales of teachers had had the training and teachers had not had the training.

a) Training

Training of the teachers was conducted by the experimenter. While the control group only participated in the feedback session, for the experimental group, the training consisted of two elements. Firstly, feedback session to the school on the initial set of observations, and secondly, a revisited version of the ‘Power-Point’ presentation ‘Managing behaviour – four essential steps’ (Swinson & Harrop, 2005; Swinson & Melling, 1995). Compared to the original one, the revisited version included an introductory part on functional analysis of approval and disapproval (see Appendix 4 for the overhead projections we used, and Appendix 5 for the English translation of them). Furthermore, a 30 minutes session was foreseen during which a sample videotape of a teacher was used for teaching participating teachers to score different types of verbal feedback.

i) Feedback session

For the first element, results of the questionnaires on job satisfaction, self-efficacy and the use of praxis were presented and commented. Mean scores only for the whole staff were presented to the teachers, not individual scores.

The feedback on the teachers’ current use of verbal feedback was based on a preliminary analysis of the original sets of pre-training recordings. The identity of individual teachers was kept confidential, the results were reported only on the basis of the whole school results and were reported back only in terms of percentages of

feedback given. The rates of individual teachers were not reported. These scores were for percentages of: overall approval, approval for work (academic), approval for behaviour (social) and for overall disapproval, disapproval for work and disapproval for behaviour.

Comparisons were made with previous research in this area, notably the work of Apter et al (2010) on British primary schools.

No further comments were made on the “goodness” of their rates of different types of feedback.

ii) Power-Point

The second element and core of the training, the Power-Point presentation, included 50 overhead projections (see Appendix 4 for the overhead projections we used, and Appendix 5 for the English translation of them). Most of the projections included a graphic aimed at representing the point being made and included very brief written material. The teachers were provided with a copy of the presentation and were encouraged to make notes.

At first, a histogram was shown to the teachers that compared both the data collected in their school and the ones collected in the rest of Italy for the investigation we presented in chapter 3, with the ones found by Apter et al (2010) about primary school teacher verbal behaviour and their students’ on-task time in the United Kingdom. The histogram showed quite clearly the difference between Italian sample and British sample: in the latter one, there was a higher rate of approval, a much lower rate of disapproval. Furthermore, British primary school students’ time on-task was significantly higher.

It was pointed out to the teachers, however, that their current teaching style was essentially a reactive one in that much of their feedback, especially their negative feedback to social behaviour was in response to pupil or groups of pupils that basically were not doing as they were told. It was explained that telling-off pupils was essentially a very limited strategy, which only yielded short-lived changes in behaviour. It was argued that a much more proactive strategy, one that involved providing a great deal more in terms of positive feedback, especially positive feedback aimed towards the

pupils' behaviour might prove much more effective way of leading to improved pupil behaviour and learning.

Functional analysis of disapproval was presented via several practical examples (videotapes) in order to emphasise that pupils' disruptive behaviour is usually fuelled with teacher negative attention.

When the teachers discussed their schools' results and the comments made about teaching styles, there was general agreement that the views expressed about being more proactive seemed logical. There were no major objections raised.

After that, the four essential aspects of the original power point were presented. These may be summarized, in instructional form, as in the following.

Four essential steps to managing classroom behaviour

1. *Always make your requirements absolutely clear.* Requirements for each class situation must be simple and observable. Directions should be explicit and include: materials needed by pupils, permitted noise levels, pupil seating positions, means of communication.
2. *Remember to look for the behaviour you want rather than the behaviour you do not want.* Whenever a direction or instruction is given, look for pupil(s) complying and either praise or inform them that they are doing what is required. If you think no one is doing what you requested, just praise any rough approximation to the final desired behaviour. Naming the pupil(s) concerned adds value to the acknowledgement, and adding description of the acknowledged behaviour repeats the original instruction for the rest of the class.
3. *Frequently acknowledge pupils when they are doing what is required.* Praise or acknowledge pupils as they work appropriately. Giving approval to a group is a good way of delivering approval to a number of pupils and is especially useful for maintaining appropriate group behaviour.
4. *Change the frequency of the feedback to suit the situation.* Use more feedback at the beginning of any new activity or when a new set of instructions is given.

Furthermore, teachers were given advice on how to deal with off-task and disruptive behaviour and each of the advice presented was role played with them. This advice may be summarized as: do not draw attention to pupils who are off-task, praise/acknowledge

on-task pupils next to or near such pupils. For off-task pupils, additional strategies are ‘the use of the look’, ‘calmly repeating the directions with name’. If these do not work, get close, use eye contact, state expectations clearly and quietly, remind the pupil of consequences. Never ignore disruptive behaviour. Use school sanctions if a pupil wilfully hurts another, deliberately damages property, overtly refuses to do what they are told, engages in behaviour that stops the lesson functioning. Remember that ‘telling pupils off’, can be a complete waste of time unless the pupil is told what behaviour is expected; therefore, it is essential to use redirections as part of the feedback to pupils.

ii) Self-scoring

The main aim of the course was that the teachers would increase their rates of approval contingent upon required behaviours and decrease their rates of disapproval and that these changes would be accompanied by increased pupil on-task behaviour. Self-scoring has been shown to be an effective strategy in increasing teacher’s positive statements during classroom instruction (Silvestri, 2004). Therefore, the last part included an activity. The activity was presented as follow:

“Find a trusted colleague in school and offer to observe one another during the course of a lesson when one of you has some non-contact time. All you need is a simple record sheet to record each occasion when a certain type of feedback is delivered. Alternatively, if you have access to a classroom assistant ask them to do it.

If it is not possible to arrange for someone to observe, you can monitor your own performance. Try to give at least three approval for each disapproval given”

After a brief discussion about the feasibility of the task, we spent the last 30 minutes watching sample videotapes of teachers. Participating teachers were encouraged to both recognise and score different types of verbal feedback.

4.3.4 Interobserver Agreement

The experimenter and one graduate student collected interobserver agreement data on 40.2% of sessions. Agreement rates were calculated using the Kappa coefficient

(Cohen, 1960). Kappa was calculated at between .77 and .89 for joint observations, with a mean value of .85.

4.4 Results

4.4.1 Teacher different type of feedback

The changes in the teachers' verbal behaviour as a result of their training is reported in Table 28 and Figure 1, 2.

Table 28- Average rate per minute of different type of teacher verbal feedback before and after the training: Means (SDs)

	PRAISE				CRITICISM			
	Task		Social		Task		Social	
	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>
Exper.	.22 (.1)	.49 (.3)	.01 (.01)	.11 (.1)	.15 (.1)	.06 (.1)	.64 (.2)	.39 (.2)
Control	.21 (.1)	.15 (.1)	.01 (.02)	.01 (.03)	.15 (.1)	.19 (.2)	.61 (.3)	.64 (.3)

Mixed repeated-measures analysis of variance (group per time) revealed that the training produced a post-test significant increase both in task performance praise (significant interaction, Fig.1: $F_{(1,30)} = 10.963$, $p < .01$, $\eta^2=.27$) and in social behaviour praise rate per minute (Fig.1: $F_{(1,30)} = 10.121$, $p < .01$, $\eta^2=.25$) only for the teachers in the experimental group.

Symmetrically (Fig. 2), the same ANOVA testing the interaction group per time on teacher criticism showed a statistically significant decrease at post-test only for the teachers in the experimental group, both for criticism to task performance ($F_{(1,30)} = 11.228$, $p < .01$, $\eta^2=.27$) and criticism for social behaviour ($F_{(1,30)} = 13.034$, $p < .01$, $\eta^2=.30$).

Figure 1- teacher praise rate before and after the training

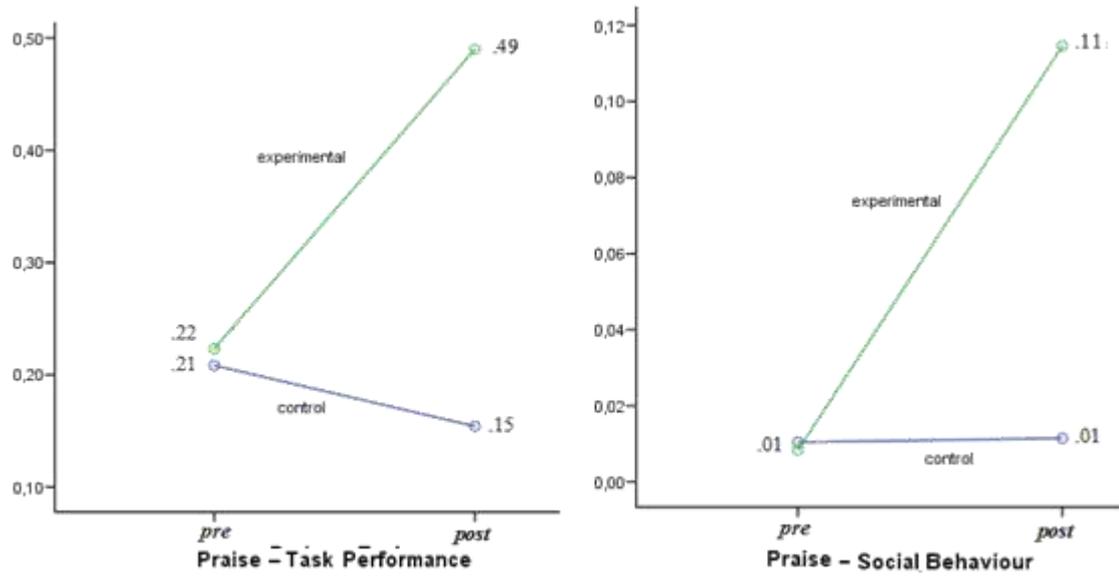
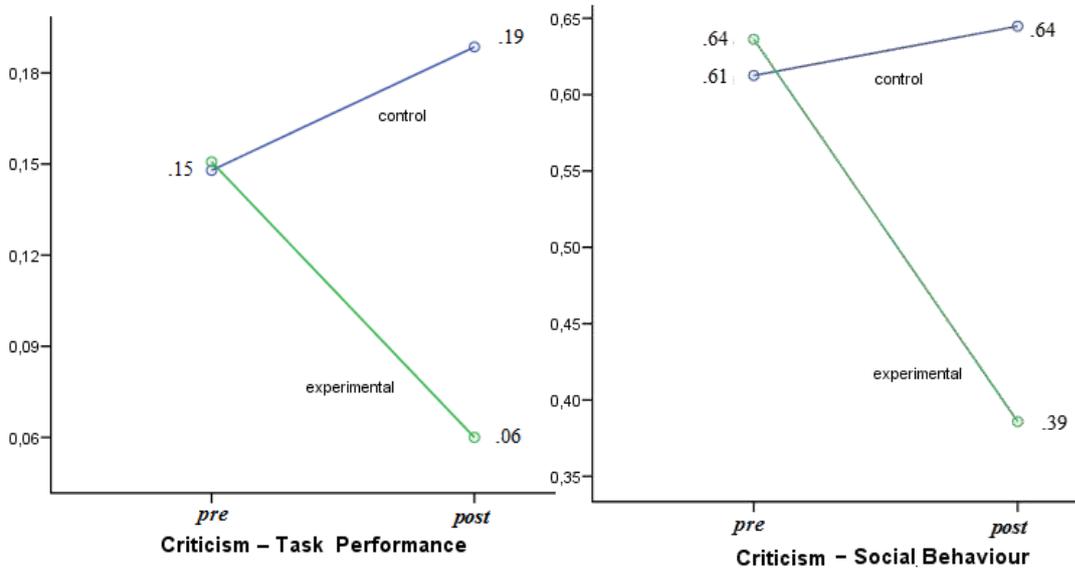


Figure 2- teacher criticism rate before and after the training

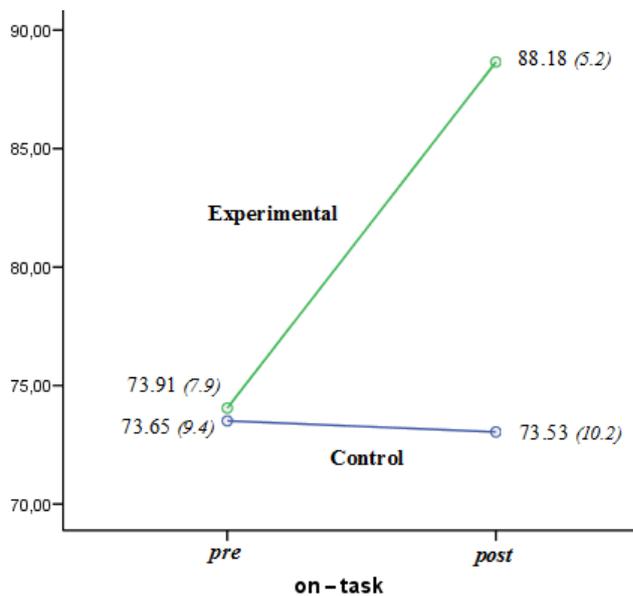


4.4.2 Student behaviour

The teachers were observed teaching both before they took part in the training and then approximately four weeks after training. During these observations, the behaviour of the pupils in their classes was also observed (Fig.3) in order to ascertain if the application

of the teachers' newfound skills had any influence on the behaviour of their pupils. The changes in pupil behaviour went in the expected direction as a result of the training: a mixed repeated-measures analysis of variance revealed that the training produced a significant increase in students' time on-task at the post-test ($F_{(1,30)} = 25.793$, $p < .001$, $\eta^2 = .46$). There is very strong evidence of a shift in pupil behaviour as a result of changes in teacher verbal feedback.

Figure 3- Students' time on-task by group: Means (SDs)



a) Job satisfaction

The means and standard deviations for job satisfaction scores on pre and post-test are shown in Table 29. A mixed repeated-measures analysis of variance revealed that the training did not produce a significant change at post-test.

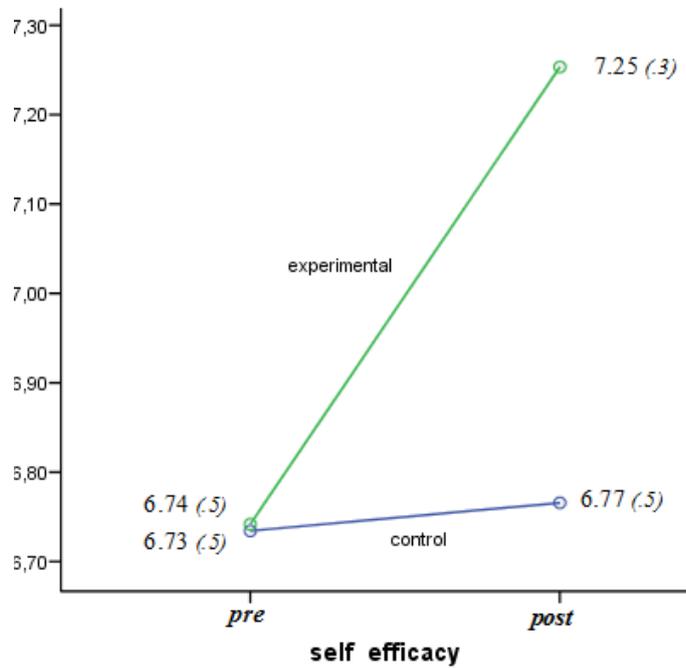
Table 29- scores in teacher job satisfaction before and after the training: Means (SDs)

	Pre-test	Post – test
Experimental (N=12)	5.53 (.8)	5.57 (.8)
Control (N=14)	5.51 (.4)	5.51 (.4)
Total	5.52 (.6)	5.54 (.6)

b) Self-efficacy

A repeated-measure analysis of variance (Fig. 4) revealed that the training produced a significant increase in self-efficacy scores at the post-test ($F_{(1,24)} = 7.401, p < .05, \eta^2=.24$).

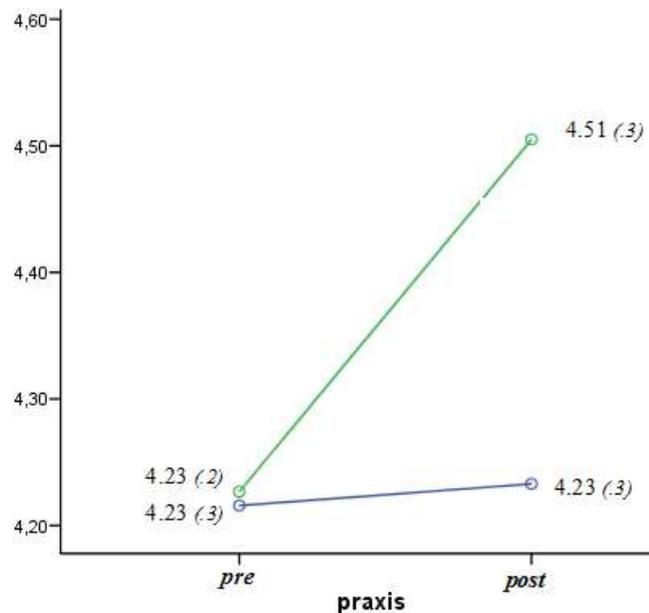
Figure 4- teachers' self-efficacy scores before and after the training



c) Praxis

A repeated-measure analysis of variance showed (Fig.5) that the only experimental group's scores increased significantly at the post test ($F_{(1,24)} = 5.896, p < .05, \eta^2=.20$).

Figure 5- teachers' praxis scores before and after the training



A negative relationship was found between the score in praxis and teacher average disapproval rate per minute ($r = -.420$, $p < .05$). The result was expected given that, among the others, the questionnaire about teacher praxis foreseen items as “I do positively reinforce student’s effort and good results”, “I do encourage students when they experiment failure” – high scores in the items mean that teacher uses those praxis a lot.

4.4.4 Social Validity

Results of the social validity questionnaire that was given to participants (see Appendix 6) are shown in Figure 6. Questionnaires were given to teachers at the end of the last observation and re-collected a week after. Only 11 out of 15 teachers who took part in the training gave the questionnaire back.

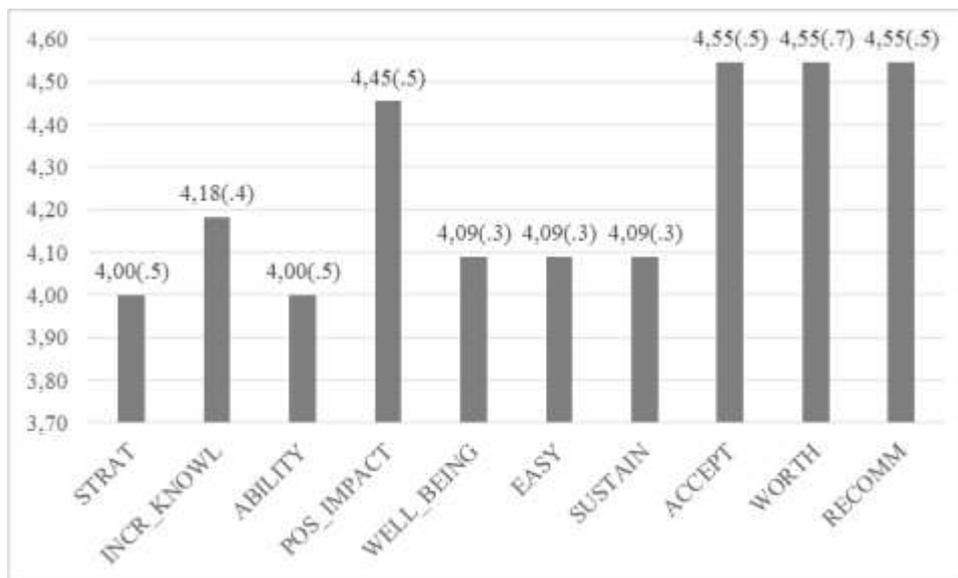


Figure 6- results of the social validity questionnaire

The data show the experimental group to have been highly satisfied with the program. The mode response on the majority of the questions was 5 (*strongly agree*). Ninety per cent agreed or strongly agreed that the program made a positive impact on their well-being ($M = 4$, $SD = .5$), and 100% agreed or strongly agreed that the program improved positive school outcomes ($M = 4.45$, $SD = .5$). Likewise, on Question 2 ($M = 4.18$, $SD = .5$) and Question 3 ($M = 4.09$, $SD = .30$), 100 % of teachers agreed or strongly agreed that they had increased their knowledge and skills in classroom management.

Concerning the procedures for the program's interventions, 100 per cent of teachers agreed or strongly agreed that procedures were easy ($M = 4.09$, $SD = .3$). In addition, 100 per cent of teachers agreed or strongly agreed that the strategies we presented was sustainable ($M = 4.09$, $SD = .3$). The majority of the teachers ($M = 4.55$, $SD = .5$) also agreed or strongly agreed that they would recommend the program to other educators, and 100% ($M = 4.55$, $SD = .7$) agreed or strongly agreed that the program was worth their time and effort.

4.5 Discussion

The main aims of the training programme were to help teachers improve their rates of approval contingent upon appropriate pupil behaviour to reduce their rates of disapproval and to increase their pupils' on-task behaviour. The results show that the programme has successfully fulfilled those aims. They show both teachers' approval and disapproval rates being changed by a relatively brief intervention and these changes being accompanied by increased levels of pupil on-task behaviours.

Because the investigation comprised one pre-training measure and one post-training measure, we cannot claim any long-term effect of the intervention. We do, however, feel confident that the increased level of pupil on-task behaviour that was experienced by all teachers in the sample has emphasized to the teachers the value of maintaining their approval/disapproval levels at their post-training rates.

The proportionality of different types of feedback used by the teachers who participated in this study was the same as the one found in the investigation we presented in chapter 3: the majority of feedback was of a negative nature and directed in response to pupils' behaviour. Positive feedback was directed toward pupils' work, while feedback directed towards pupils' behaviour was very seldom observed. The intervention has successfully changed that balance. Before training, teachers were using 3 times as much disapproval as approval (.79/.23), while after training this relationship was reversed and more approval than disapproval was given. Number of approval per hour was almost tripled (from 14 to 36). Approval for social behaviour – that was nearly non-existent – became ten times more frequent than it used to be before the intervention.

It is worth noting that such results were obtained after a training that took only two and a half hours to deliver. It is therefore worth considering the elements of training used in the intervention that made it so powerful.

First, the advice given to the teachers was based upon proven results. That allowed the presenter to state that ‘we recommend you treat pupils in this way because we have sound evidence that if you do, it will work’, rather than presenting a series of bland suggestions the teachers might like to try. Time was allowed for discussion on implementing strategies but there was little opportunity for debate about whether the methods recommended would work.

Second, at the beginning of the presentation teachers received a feedback: they were given a brief outline of their current use of verbal behaviour, as recorded in the pre-training observation. Individual teachers were not identified. The findings were presented on a group basis. The results for their school were similar to the ones found in the Italian sample, allowing the presenter to highlight the under use of positive feedback and the over use of negative feedback. Above all, the results for the British sample had an opposite tendency, which reflected a better students’ conduct. This represented a further evidence in favor of the strategies we were going to suggest to them.

Third, every attempt was made to keep the content of the presentation as simple as possible. Changing teachers’ values is the most difficult aspect because they have become well-ingrained. We believed that presenting easy-to-use techniques would have been the winning strategy. Furthermore, seeing as we were only able to give the training to teachers at the end of an eight-hour school day, a longer and more complex intervention would probably have not been as well received as the one we proposed. These are the main reasons why we choose an intervention very similar to the one used by Swinson and Harrop (2005). Indeed, teachers appeared to understand the simple message contained in the “4 essential steps” and as the results, at the post-training observations, showed they were employing the strategies we offered to them in their classrooms.

It seems that the teachers’ newfound skills produced an increase both in the use of praxis and in teachers’ self-efficacy. However, we have not observed changes in teachers’ job satisfaction.

Higher scores in “praxis” may well be a consequence of increased knowledge and skills due to the training. Experience students’ behavior change due to changes in their strategies, may have had a positive impact on teachers’ self-efficacy. The fact that teachers’ job satisfaction was not affected by changes due to the training they received, may be a consequence of the fact that other variables we did not take into account influence job satisfaction (e.g. working conditions, relation with colleagues, etc.).

In conclusion, the data demonstrate that the short course of training has achieved its primary objectives of increasing teachers’ rates of approval contingent upon appropriate pupil behaviour and of decreasing disapproval, with concomitant improvements in pupils’ behaviour; improving teachers’ self-efficacy.

In the near future, a follow-up investigation should evaluate whether the changed levels in both teacher and pupil behaviour had been maintained. Moreover, it would be valuable to verify any improvements in teacher job satisfaction.

Chapter 5

THE EFFECT OF INCREASING WRITTEN APPROVAL ON ITALIAN STUDENTS' ACADEMIC PERFORMANCE IN HIGHER EDUCATION

5.1 Introduction

So far, behavioural work has had its focus on verbal approval and disapproval, although some investigators - e.g. Bain et al. (1991) - have included the measurement of non-verbal behaviours. These are usually defined as facial expressions, head nods, etc. Yet when much of the teachers' time is spent on marking pupils' work, it is surprising not to find research on the effects of teachers' written comments, ticks, etc. There is surely considerable scope here for influencing pupils' behaviour, the nearest approach having been the use of 'a letter home saying how well the pupil has done', as reported by Harrop and McCann (1983; 1984). The marks and the writing that teachers put on pupils' books can be interpreted as conveying approval or disapproval certainly as easily as can teachers' comments, and since they are not transient, the likelihood is that they can be more accurately interpreted than comments. Moreover, they have the potential for being witnessed by a different population—i.e. the parents rather than the other pupils in the classroom (Harrop & Swinson, 2007). The work of Burns (1978) demonstrated the popularity of "a favourable report home", so that it appears likely that homework books containing favourable comments are likely to be shown to parents with a consequent impetus being given to school work.

Apart from the few studies mentioned, it seems that no previous study has investigated the effect of teacher written approval on students' academic performance.

Several qualitative studies (e.g. Hulme & Forshaw, 2009; Price, Handley, Millar, & O'Donovan, 2010) have discussed effectiveness of written feedback provision for undergraduate students. However, as Brophy (1981) pointed out in her functional

analysis of teacher praise, praise/approval must be distinguished from simple “affectively neutral” feedback (p.6). “When teachers praise students, they do not merely tell them the degree of success they achieved [...] In addition to such feedback, praise statements express positive teacher affect (surprise, delight, excitement) and/or place the student's behaviour in context by giving information about its value or its implications about the student's status” (p.5). Teacher approval goes beyond mere affirmation of correctness of response.

Given that very little is known about the effect of teacher written approval on students' behaviour, a need for an exploratory research was felt to gain experience that would have been helpful in formulate relevant hypothesis for more definite investigation. Therefore, an exploratory study and a subsequent experimental study with undergraduate Psychology students within our university were conducted.

5.2 The research

The two studies we are going to present shared, in part, the hypothesis. The studies were designed to investigate the effect of increased written approval on students' academic performance. Given that, increasing teacher verbal approval has been shown to produce both increased pupil ‘on-task’ behaviour (e.g. Swinson & Harrop, 2005) and academic achievement (e.g. Weinstein, Laverghetta, Alexander, & Stewart, 2009), our hypothesis went in the same direction: the hypothesis that will be tested is that increasing written approval on written tests produces increased academic achievement.

Definitions

The final definition of approval used in this investigation was: positive written comments which indicated praise or satisfaction with the student's answers on the test. That included such comments as “A well-presented piece of work”, “you have demonstrated a good grasp of the course material with your correct answers. Well done” or “whilst you didn't get too many answers correct, those that you did get correct show

that you are really beginning to gain an understanding of the course material. You should feel encouraged by that”.

5.2.1 Study 1

a) Hypothesis

The key research question of this study was whether receiving different types of written feedback produces differences in student performance on course-works and/or on the final assessment.

b) Method

Participants

The sample consisted of one hundred and eighty-four first-year undergraduate students from a northern Italian university who attended a course on Developmental Psychology during the second semester (February – May 2012).

Procedure

Procedure

The students completed a multiple-choice questionnaire based on preliminary lectures in a course on Developmental Psychology. They were then allocated to one of three conditions (such that the means and standard deviations of the three groups were comparable). Condition (1) students received the mark (in thirtieths) – eighteen was the minimum pass mark - as usual; condition (2) students received both the mark and a grade in the form of a synthetic judgment (if the mark went from 10 to 16, they received “you got very close to it; from 17 to 21, fair/sufficient; from 22 to 24, good; from 25 to 27 very good; from 28 to 30, excellent”); condition (3) students received both the mark and written approval.

The independent variable was manipulated through three assignments (mix of open-ended and multiple-choice questions) ensued fortnightly for the entire duration of the course. The scores on the assignments were used as the dependent variable, as well as the score on the final assessment.

In order to guarantee the blindness of the procedure, while the professor marked all the papers without knowing the names of the students, the experimenter held the “key” of student identity, so that he could later check whether individuals had improved their scores or not, and added either grades or written approval.

c) Results

Data were analysed using a general linear mixed model for repeated measures. To capture the variation between subjects in their performance we included in the model a random effect associated with the intercept for each student. Intra class Correlation Coefficients of .48 in performance justified the choice of the model. Indeed, this means that the random effect associated with the intercept explained almost 50% of variance in our unit of analysis (subjects), indicating that test performance (as number of correct answers) was highly variable between different individuals.

The interaction between group and test results was not significant (Fig.11; Tab.30). Therefore, there was not enough evidence to reject the null hypothesis of equality of population means. Students’ performances in the three conditions were comparable.

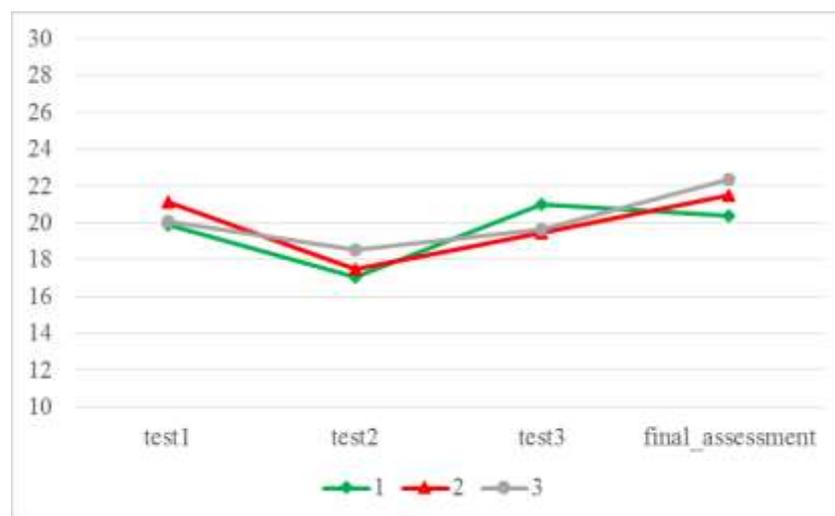


Figure 11- average test scores in the three conditions throughout the course and on final assessment

Table 30- *test scores in the two conditions: Means (SDs)*

condition	test1	test2	test3	Final assessment
1 (N=61)	19.90 (7.1)	17.07 (7.8)	21.00 (5.7)	20.41 (5.8)
2 (N=61)	21.11 (6.6)	17.49 (7.9)	19.48 (7)	21.51 (5.1)
3 (N=62)	20.05 (6.4)	18.54 (8.2)	19.66 (7.4)	22.38 (5.4)
Total (N=184)	20.36 (6.7)	17.70 (7.9)	20.00 (6.8)	21.45 (5.5)

5.2.2 Study 2

a) Hypothesis

The key research question of this study was whether receiving different types of written feedback produces differences in student performance on course-works and/or on the final assessment.

Furthermore, we asked the students to complete a module feedback form in order to assess their perception of the course, the professor and the feedback they received. The hypothesis was that the students who had received additional individualized positive comments would have been more positive towards the course, the professor and the feedback they received than those who had received normal feedback.

b) Method

Participants

The sample consisted of one hundred and forty third-year undergraduate students from a northern Italian university who attended a course on Educational Psychology during the first semester (October – December 2013).

Instruments

A 9 items questionnaire was created by the experimenter (see Appendix 8 for the version we used, and Appendix 9 for an English translation) which employed a Likert rating scale with end points of one and five (1 = Strongly disagree, 5 = Strongly agree). The questionnaire was administered in paper/pencil format. The students were polled regarding their perceptions of the course, the professor and the feedback they received throughout the course.

Procedure

The students completed a multiple-choice questionnaire based on preliminary lectures in a course on Educational Psychology. They were then allocated to one of two conditions (such that the means and standard deviations of the two groups were comparable). Condition (1) students received normal feedback (neutral information about some aspect of performance), which tended to highlight weaknesses as well as occasionally noting strengths; condition (2) students received additional individualised positive comments. A series of assignments ensued once a week for the entire duration of the course. Four of the tests were multiple choice and three open-ended. The two types of test were alternated. The independent variable was manipulated through the open ended tests and the scores on the multiple choice tests were used as the dependent variable.

In order to guarantee the blindness of the procedure, while the professor marked all the papers without knowing the names of the students, the experimenter held the “key” of student identity, so that he could later check whether individuals had improved their scores or not, and added extra positive comments.

The students were not given their course work grades, since the first study had shown that the numerical grade diverted students’ attention from the qualitative feedback.

In this study we also recorded whether students had read the feedback or not and have considered in the final sample only the first ones.

Additionally, after the students had received their final assessment mark, we asked them to complete a module feedback form. Eighty-two students completed the questionnaire.

c) Results

Mean scores under the two conditions were similar - with an increasing trend - throughout the course and during the final assessment (Fig.12; Tab. 31), although students receiving normal feedback (M = 29.16, SD = 1.96) scored marginally higher on the final assessment than those receiving additional individualised positive comments (M = 28.21, SD = 3.05) ($t_{(130)}=2.144, p<.05$).

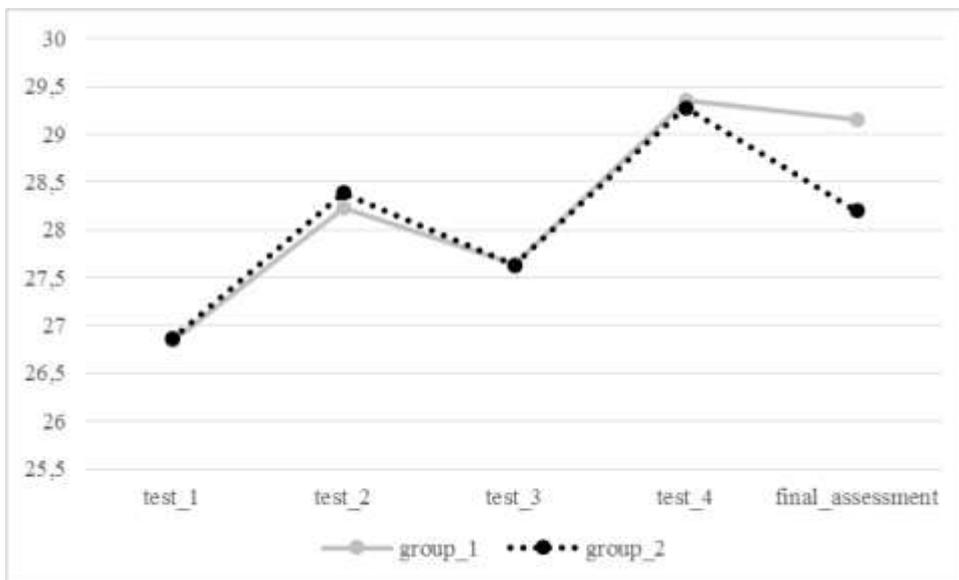


Figure 12- average test scores in the two conditions throughout the course and on final assessment

Table 31- test scores in the two conditions: Means (SDs)

condition	test1	test2	test3	test4	Final assessment
1 (N=70)	26.84 (1.4)	28.23 (2.3)	27.64 (3.3)	29.36 (2.2)	29.16 (3.1)
2 (N=70)	26.86 (1.7)	28.39 (2.1)	27.63 (2.9)	29.28 (3.2)	28.2 (2.2)
Total (N=140)	26.85 (1.5)	28.31 (2.2)	27.64 (3.1)	29,32 (2,7)	28.68 (2.7)

Interestingly, although the students who had received additional positive comments (N=43) had a worst performance on tests, they were, generally, more positive on the module feedback form towards the course, the professor and the feedback they received

than those who received the normal feedback (N=39). Differences between the two groups were not statistically significant (Fig. 13).

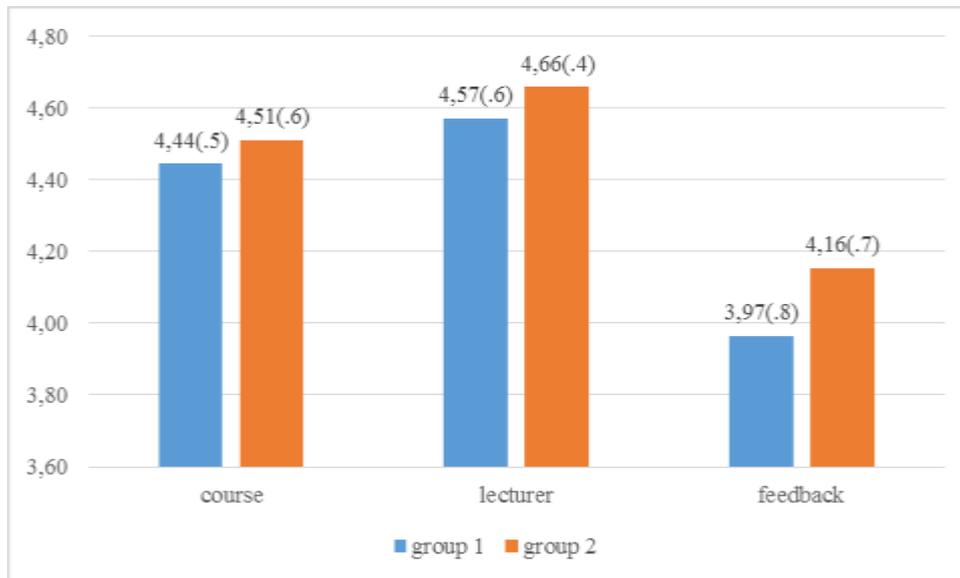


Figure 13- Average scores of the two groups in the Module Feedback Form

5.3 Discussion

This research has certainly been affected by the fact that we could not draw upon other researchers' experience. Findings from a study in such an embryonic phase should be viewed with tentative interest at best and, hopefully, should represent an impulse for further research on the current topic.

In the first study, we wanted to see whether receiving either different types of written feedback or written approval produced differences in student performance on course-works and/or on the final assessment. We found students' performance to be similar over the three conditions. Among possible explanations for the three groups being comparable might be an overlap or even equivalence in terms of function over the three levels of the independent variable. As well as approval, the numerical grade may function as a generalised conditioned stimulus. Both of them may have appetitive and discriminative functions. The mistake we did was taking for granted that approval would have had a stronger functional meaning compared with the numerical grade

although we have not taken into account the fact that, in the instructional history of a university student the mark in thirtieths is repeatedly paired with conditioned and unconditioned reinforcers, clearly more than compliments by professor. Withdrawing the numerical grade might be necessary in order to investigate the effect of written approval on students' academic performance.

Moreover, in the first study, we were not able to collect data about how many students actually had collected the feedback, hence we cannot say whether the independent variable was in action or not.

The second study takes the limitations of the first one into account. We simplified the design by reducing the independent variable's levels and withholding the numerical grade in order to partial out its effects. We investigated whether receiving either normal feedback or individualised positive written comments produces differences in student performance on course-works and/or on the final assessment. Additionally, we wanted to investigate whether the students who had received additional individualized positive comments would have been more positive towards the course, the professor and the feedback they received than those who had received normal feedback.

Mean scores under the two conditions were similar - with an increasing trend - throughout the course.

The increasing trend may be explained by the fact that feedback might have functioned as a reinforcer and/or as a prompt/instruction on how to respond next time.

On the final assessment, students receiving normal feedback scored marginally higher than those receiving additional individualised positive comments.

Among possible explanations for the increased positive comments group not scoring higher than the normal feedback group might be a possible 'complacency effect'. In other words, the extra positive comments (appreciated, as they reported in the module feedback form) might have made those students feel that they had reached a sufficient level of achievement and that there was little need for any extra work prior to testing, whilst the normal feedback group might have not felt so complacent. Giving a questionnaire prior to the exam to measure students' confidence levels in their abilities prior to the test would endorse this hypothesis.

Moreover, It may well be that the Italian students were not used to receiving much praise for their academic behaviour and that this might have had an influence on our

results. By all means, even stimuli whose presentation under most conditions would function as unconditioned reinforcers might not be a reinforcer under a different set of circumstances (Cooper et al., 2007).

Whilst the results demonstrate that the increased written comments given to students has not given rise to increased academic performance, it must be stressed that the results were obtained with northern Italian students. The extent to which these results can be generalized will depend on further investigation following on from this first step, undertaken in different settings.

CONCLUSIONS

Positive teaching practices encourage teachers to deliver frequent and appropriate attention in the form of praise and approval to their students. As we saw, teacher verbal behaviour may be considered a key factor in achieving successful outcomes in classroom management interventions. Hayes, Hindle and Withington (2007) state that “praise is possibly the most fundamental tool available to teachers and arguably the most powerful and meaningful for pupils” (p. 162). This is probably the reason why interest in this area of inquiry is still lively after forty years, and this is why we decided to carry out the very first investigation into the natural rates of teacher approval and disapproval in Italy.

As expected, this gave us valuable insight into what happens in Italian school classrooms. We feel, as well, that these findings may add to the international literature on this subject.

The proportionality of different types of feedback used by Italian teachers appeared to be more similar to the one found in the earlier investigations carried out mainly in English-speaking countries during the 1970s than to the pattern found in studies from the 1980s to date. However, this finding was not as surprising as to realise how receptive the group of Italian teachers was to the training we gave to them.

The results showed that the programme successfully fulfilled the aims: teachers’ approval and disapproval rates were changed by a relatively brief intervention and these changes were accompanied by increased levels of pupil on-task behaviours.

Because the investigation comprised one pre-training measure and one post-training measure, we cannot claim any long-term effect of the intervention. However, we feel confident that the increased level of pupil on-task behaviour that was experienced by all teachers in the sample has emphasized to the teachers the value of maintaining their approval/disapproval levels at their post-training rates. The initial improvements following a behaviour change intervention are, indeed, important when considering how to achieve teacher compliance for implementing training recommendations. Small “wins” experienced by the teacher are crucial to help bridge the gap from rule-governed

behaviour to that which is maintained by natural contingencies (Evans-McLeod, 2008). This process of moving from rule-governed to contingency governed behaviour also emphasises the need for post-training support to ensure that the training strategies are being implemented by the teacher in the classroom successfully so that positive consequences are experienced.

The short course for teacher training we used resulted to be just as successful as longer training packages in terms of achieving behaviour change. Said that, a short training course may be even argued to have had advantages over a longer course in terms of monetary costs and resources saved. However, it should also be considered that short courses, such as the one we used, still require consideration of elements beyond the training package itself. With a short course, it is not as necessary for the participants to demonstrate ongoing commitment to the training aims. As a result, there may be an increased likelihood of teacher disengagement and non-compliance and few strategies from the training may actually be attempted in the classroom. Therefore, it is particularly important to provide post-training follow up for teachers after a short training course in order to support them when implementing new skills and ensure they experience success when implementing training recommendations.

This is the main reason why we arranged a post-training follow up, whose results, however, we will not be able to report here, given that it is going to be carried out after the submission of this work.

Future projects

In future investigations, some time in the classroom should be foreseen so that the experimenter can provide the teachers with immediate feedback about the implementation of the newfound skills. Moreover, data about treatment integrity should be provided. Treatment integrity refers to the degree to which treatments are implemented as planned, designed, or intended and is concerned with the accuracy and consistency with which interventions are implemented (McIntyre, Gresham, DiGennaro & Reed, 2007).

Moreover, we think that in order to develop a full picture of this area of inquiry, additional studies will be needed that investigate the relationship between pupils' on-task behaviour and their achievements.

There have been a number of investigations undertaken using behavioural methodology in school classrooms with different focuses (e.g. evaluating training packages for teachers; examining teachers' natural rates of approval and disapproval in classrooms). Of those investigations focused on treating pupils, the great majority have concerned themselves with pupil on-task behaviour. Conversely, there has been a scarcity of reported investigations concerned with achieving academic aims (e.g. Harrop & McCann, 1984; Panagopoulou-Stamatelatos and Merrett; 2000; Chalk and Bizo; 2004). The preponderance of work concerned with increasing pupils' on-task behaviour is likely to have been influenced by teachers' desires for well-ordered classes, and by an implicit assumption that when on-task behaviour is increased, pupil learning will also increase (Harrop & Swinson, 2007). That is not necessarily the case, as Klein (1979) noted many years ago. As Harrop and Swinson (2007) pointed out, another powerful reason for the focus on on-task behaviour lies in the difficulty of setting up an investigation using behavioural methodology that is aimed at pupil learning. "Take, for example, an investigation aimed at increasing pupils' mathematical ability. It would be impossible to measure baseline and intervention levels of mathematical ability over a significant period of time, because pupils would necessarily be working at different kinds of tasks if learning was taking place. The same reasoning would apply to most school subjects" (p. 46). In certain specific circumstances, however, the behavioural model is appropriate, as the three examples cited previously illustrate, but generally the model is difficult to apply to pupil learning. Having said that, the worrying feature of so much research being devoted to on-task behaviour is that such research has not been accompanied by any check on the effects of increasing pupil behaviour on pupil learning. It would be interesting to accompany a piece of behavioural research aimed at improving pupil on-task behaviour with a more traditional research design, in order to investigate any relationship with pupils' achievements.

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Appendices

- 1) Letter to British Head Teachers
- 2) Letter to Italian Head Teachers
- 3) Partial Time Interval Observation sheet for 6 Subjects (PTIObs6S):
Overview and Guidance, Recording Sheet, Data Summary Sheet
- 4) Overhead Projections used in presentations of the modified version
of 'Four Essential Steps' – training (Italian version)
- 5) Overhead Projections used in presentations of the modified version
of 'Four Essential Steps' – training (English version)
- 6) Social validity questionnaire (Italian version)
- 7) Social validity questionnaire (English version)
- 8) Module Feedback Form (Italian version)
- 9) Module Feedback Form (English version)

1) Letter to British Head Teachers

Dear Head Teacher,

The Survey of UK Secondary Classroom Behaviour (SUKSCB) is a national project that is being conducted by a researcher from the University of Cardiff. The project is aiming to observe and analyse student behaviour in Secondary Schools across the United Kingdom. We are looking in detail at the relationship between the type of lesson, the time of day, teaching style and student behaviour. This type of study has been conducted before in secondary schools but in the past has been restricted to relatively small geographical areas. With this national study we will be able to detect if there are significant regional variations in the collated data.

All data sent to the researcher will be anonymous. Individual teachers, schools and students cannot be identified by the researcher. The research design has been examined and passed by the University of Cardiff's School of Psychology's Ethics Committee. As this is a whole-class observation project and carried out in the strictest confidence, we are advised that it is not necessary to seek parental permission. However, at your discretion, you may wish to let parents know in general terms that the school is taking part in a nationwide survey.

Participation in the project is voluntary. Permission for any observations in your school must be at your discretion and of course the class teachers themselves must agree to the observation.

The two observations take half an hour to complete. We have asked the psychologists to observe, where possible, the same teacher and class in a morning and afternoon session. We are keen to have a reasonably accurate sample and therefore the class/classes to be observed should ideally be selected at random.

We intend to publish the results of the survey and we will let you know when that happens and what we find.

If there is any further information that you require the University of Cardiff researcher can be contacted by email by your EP.

We hope that you will be able to agree to your school participating in the project.

Yours faithfully

2) Letter to Italian Head Teachers

Alla cortese attenzione del d. s.,

La cattedra di Psicologia dell'Educazione dell'Università degli studi di Parma sta collaborando con l'Università di Cardiff (Galles) al fine di proporre in Italia un sondaggio attualmente in corso nel Regno Unito. Il fine è quello di ottenere nuovi dati sulle scuole del nostro paese, oltre che di confrontare i dati Italiani con quelli raccolti nel Regno Unito e, per la prima volta, con quelli presentati da una vasta letteratura in tema di interazioni insegnante-allievi in paesi anglofoni.

Il Survey of UK Classroom Behaviour o SUKCB (sondaggio sul comportamento nelle scuole del Regno Unito) è un progetto nazionale condotto dall'Università di Cardiff. Il progetto ha lo scopo di osservare e analizzare il comportamento degli studenti di tutto il Regno Unito. Si sta studiando se e in che modo variabili come ad esempio materia d'insegnamento, momento del giorno, numero di adulti in classe influenzino il comportamento degli studenti, nella fattispecie la loro condotta in classe. Studi simili sono stati condotti in passato negli Stati Uniti, nel Regno Unito e in Australia, sebbene ristretti a piccole aree geografiche. Tramite questo studio a livello nazionale si avranno informazioni aggiornate circa eventuali variazioni regionali e, grazie alla collaborazione con il nostro ateneo, dati completamente nuovi per quanto riguarda l'Italia.

La partecipazione al progetto è volontaria. Il permesso per le osservazioni è a Sua discrezione, l'insegnante di classe dovrà acconsentire alla presenza di un osservatore in classe durante la sua lezione e i genitori firmare un modulo di consenso informato.

Le due osservazioni dello stesso insegnante, una all'inizio ed una verso il termine della giornata scolastica (idealmente la medesima, altrimenti in giorni differenti), dureranno trenta minuti ciascuna. Un ricercatore entrerà in classe e siederà in fondo all'aula per compilare un foglio di presa dati, senza interagire con l'insegnante né con gli studenti. Vista l'esigenza di un campionamento ragionevolmente accurato, le classi da osservare dovrebbero essere idealmente scelte in maniera casuale.

La collaborazione sua e del personale della scuola che lei dirige si rivelerebbe particolarmente preziosa per consentirci di realizzare il progetto, i cui dati verranno raccolti senza intralciare il normale svolgimento delle attività di classe e saranno utilizzati in forma anonima ai soli fini della ricerca ai sensi dell'art. 12 della legge 31-12-'96 n. 675 e delle successive modificazioni (*Tutela delle persone e di altri soggetti rispetto al trattamento dei dati personali*).

La ringrazio per la collaborazione che potrà darci e, naturalmente, siamo a disposizione per ulteriori dettagli relativamente a tempi e modi secondo cui affrontare la pianificazione della ricerca e sulla restituzione dei risultati.

3) Partial Time Interval Observation sheet for 6 Subjects (PTIObs6S): Overview and Guidance, Recording Sheet, Data Summary Sheet

OVERVIEW

Thank you for taking part in what will be the largest observational survey of secondary school student and Teacher classroom behaviour attempted to date. It follows a similar study of primary school behaviour - the 'Mass Observation of Primary Classroom Behaviour', (Apter, Arnold and Swinson, 2010, *Educational Psychology in Practice*). The findings of that Primary phase study were widely reported in national newspapers, and by DEMOS and by the BBC. The research design of the current Secondary phase study has been examined and passed by the University of Cardiff's School of Psychology's Ethics Committee.

With the current study, we are interested in investigating a number of research questions including:

- Do previous findings about ratios of social and academic praise setting currently apply in the secondary school setting?
- Are there regional variations in data?
- Are there 'time of day' variations in data?
- Are secondary phase student 'on-task' rates and classroom behaviour better or worse than previously reported?

SUKSCB 4 STEPS

1. Obtain materials via email from the project team by emailing: SUKSCB@aol.com
Please do not send results to this address. It is for project enquiries and registration only.
2. Preparation for classroom observation (Teacher Selection, Teacher Preparation, Student Selection).
3. Complete 2 x observations of 20-30 minutes each, one a.m. and one p.m..
4. Transfer observation results to the *SUKSCB Data Summary Sheet* and email the results to the project team using: SUKSCBresults@aol.com

The period for you to complete your observations and email them to the *SUKSCB* Project Team has been extended and is between now and **1.8.2012**. On receipt, your name will be placed in a weekly draw for a £10 gift/book token. These tokens have been donated as incentives for *SUKSCB* observers by the University of Cardiff.

If at any time you require any clarification of these instructions or have any further questions please e-mail one of the team at SUKSCB@aol.com.

Thank you for taking part.

Brian Apter for the
The *SUKSCB* Project Team

GUIDANCE NOTES

STEP 1 Materials and Familiarisation

In order to take part in this survey and to carry out the observation you will need to send an email expressing your interest to SUKSCB@aol.com we will send you the 4 documents by return. [You can also download the original documents from the EPNET file cache.] The 4 revised documents are:

- A. *SUKSCB* Overview and Guidance Notes

- B. SUKSCB Letter to Head Teachers
- C. SUKSCB PTIObs6S Recording Sheet
- D. SUKSCB Data Summary Sheet

You will need to familiarise yourself with all the materials - especially the *SUKSCB PTIObs6S Recording Sheet* and the instructions for use (files A and C). If you have not used a classroom observation schedule like this before, it is helpful to have a practice run before attempting to use it in this research.

This will be a methodologically rigorous study and it is important that you follow the procedures described below

STEP 2 Preparation for Observations

2.1 Teacher Selection

The school chosen will probably be a familiar mainstream school on your patch. You will need both a Head Teacher and the Teacher(s) you intend to observe to agree to the school's involvement in SUKSCB. The *SUKSCB Letter to Head Teachers* (download document B), is a suggested letter for Head Teachers which explains the project and aspects of confidentiality and ethics.

- Avoid choosing a school (or classes) where there is exceptional behaviour or class-control issues or a school which has been placed in 'Special Measures' by Ofsted.
- A 20-30 minute observation of a teacher in the morning and a 20-30 minute observation of the same teacher during the afternoon session would be *ideal*, but it is *not essential* that the same teacher is used for both observations.
- You may decide with the Head Teacher to complete more than 1 pair of observations in the school.

2.2 Teacher Preparation

Once the Teacher(s) and classes have been selected you need to:

- Reassure the Teacher(s) that they have not been chosen for a critical purpose.
- Explain that all recorded aspects of the observation are anonymous and confidential and will only be used for SUKSCB.
- Explain that they have the right to not take part and that they have the right at any time during the observation to ask the observer to leave the classroom.
- Explain that they have a right to see the record of observations at the end of the day.
- It is important that you do not discuss with the Teacher(s) in detail the exact nature of your observations prior to completing the exercise. If Teachers have advanced knowledge that you are recording their verbal behaviour then they may well alter their behaviour. It is sufficient to use the following form of words: *'The observation will be concentrating on student behaviour and the classroom variables that influence behaviour.'*

2.3 Student Selection

Use 5 students in the morning session, selected randomly; and 5 in the afternoon, selected randomly.

- It does not matter if the observed students are the same in the morning and afternoon sessions but it is important that students are chosen at random for each. One way we have found to choose a random selection of 5 students is by

privately assigning numerical identifiers as randomly as possible to a list of the students in the class, e.g. 1 to 25, and then asking a teacher in the school staffroom who is not associated with the observation task, to pick 5 numbers at random, between 1 and 25.

- The Teacher you are observing should be unaware of which students you will be observing as this may result in the Teacher giving that student more attention than would otherwise be the case.

STEP 3 Observations

The following is a set of instructions for using the ‘Partial Time Interval Observation recording sheets for 6 Subjects’ (**PTIObs6S**).

3.1 Fill in details at top of form - **Students Initials**, **Class / Teacher** identifier, **Date**, **Type of Lesson** (circle type), **Learning Support Assistants’ ID(s)** (number of, or initials) and **Class / gp. size**. Enter ‘**START TIME**’ as 24 hour clock time (hh:mm e.g. 09:35).

NOTE: Individual identifiers are only suggested for your convenience. The survey protocol requires that all staff and students are anonymous to the researcher. The completed **PTIObs6S** is not required by the researcher. Data is returned to the researcher on the anonymous ‘**SUKSCB Data Summary Sheet**’ (see below.)

3.2 Locate in the classroom your randomly selected target students - **S1**, **S2**, **S3**, **S4** and **S5**. **S6** columns are for your observations of the *main* class Teacher (or adult Learning Support Assistants if they take over the main teaching role.).

3.3 Decide on the time frequency of your observations. Try every 2 minutes to begin with. With increased experience of using the **PTIObs6S** you will be able to complete cycles of observations every minute. Using your wrist watch or a stopwatch, you should enter 0, 2 (e.g. start time and start time plus 2 minutes) and then 4, and 6, and so on, down the **+T** column as you observe the lesson. The **PTIObs6S** form will cover an hour of 2-minute observations, or half an hour of 1-minute observations.

3.4 Now quickly look at your target student **S1**. Is s/he following **directions (fd)** given him by the teacher? Mark a tick (✓) or cross (x) in the **fd** column.

OPTIONAL: You might wish to record what student **S1** is actually doing. This information is not required for **SUKSCB** but might be useful to you if you have a particular interest in the specific student’s (**S1**) behaviour. Mark a code, e.g. ‘**QW**’ for quiet working or ‘**TP**’ for talking to peer, in the ‘code’, **C**, column. Please see the first column of **PTIObs6S** form for suggested codes. You will see that there is additional space on the **PTIObs6S** form to create new codes as you require.

3.5 *Quickly* repeat process for target students **S2**, **S3**, **S4** and **S5** in respective **fd** columns.

3.6 For remainder of time segment – observe class Teacher (or Learning Support Assistant, if they have taken over the main *teaching* role) and record their verbal

behaviour in the 5 columns under the **S6** heading. If you are using 2-minute time segments, you might have used 30 seconds to observe and record **S1, S2, S3, S4** and **S5**. This would leave 1 minute 30 seconds to observe and record the Teacher, **S6**.

3.7 **INX** gives an indication of how much whole-class neutrally-toned teacher-talk there is in a particular timed period. Make a tally in the **INX** column for neutral Teacher verbal behaviour by making a mark every time the main Teacher (or teaching LSA) says a first time **IN**struction, **eX**planation or **eX**position (**INX**) to the whole class, or every 20 seconds if the teacher is talking constantly to the whole class.

NOTE: 5 is the *maximum* count in an **INX** box. If you reach 5 in any **INX** box then we assume that there is continuous teacher-talk occurring during that time period. This makes it possible to calculate a % figure for **INX**, i.e. **INX%**.

3.8 Tally individual instances of positive or negative teacher verbal behaviour Teacher verbal behaviour by making marks in the columns: Task Performance Positive (**TPP**), Social / Behavioural Positive (**SBP**), Task Performance Criticism or redirection (**TPC**), or Social / Behavioural Criticism or re-direction (**SBC**). For example, if a teacher is conducting an **eX**planation for the entirety of a time slot, but ‘mid-flow’ tells ‘John, don’t lean back on your chair!’ there would be a tally of 5 in the **INX** box and a tally of 1 in the **SBC** box.

NOTE: Whereas the **INX** *maximum* is always 5, simple tallies in the **TPP, SBP, TPC, SBC** boxes can exceed 5.

3.9 At the end of the time segment, begin the whole process again by observing the student **S1** again and recording your observations on the next row down, repeating steps 3.3 to 3.8 (above). Continue to repeat this cyclical process until the end of the observation period.

3.10 Examples of Categorisation of Teacher Comments

General Note: Categorisation of student and teacher behaviour is not an exact science. Observers will rely on their best judgement of how to categorise a particular behaviour. For example, the observer must decide whether a student staring into space is pausing for thought and following directions *or* vacantly day-dreaming and not following directions. A statistically acceptable degree of inter-observer unreliability has been allowed for in the design of the **PTIObs6S** observational protocol.

3.11 **INX**: “Get your books out and find page nineteen”, “Line up by the door”, “Find and underline all the verbs”, “This is the way to set out these calculations”, “ and “Here is a diagram of an internal combustion engine,” are **IN**structions, **eX**planations or **eX**positions. Typically, **INX** are *neutrally* delivered instructions, academic commentaries or descriptions being given for the first time to groups of students at the beginning of new activities or at transition points by a class Teacher (or a substituting TA).

- 3.12 **TPP:** “Well done, class, good work”, “Darren, that’s a really good argument you have made about Shylock’s motivation”, and “Sophie, that’s lovely writing”, are all examples of **Task Performance Positive** comments. Typically, they are enthusiastic or positive recognition / praising comments addressed to students about outcomes from a specified activity that has been directed, organised or sanctioned by the class Teacher.
- 3.13 **SBP:** “Good, 7N. It was great to hear a lot less chat today and see a lot more work happening”, “Thanks Darren for *helping* Paul with his spellings”, and “You are cooperating as a research group and working well together”, are all examples of **Social Behavioural Positive** comments. Typically, they are enthusiastic or positive recognition / praising comments to students in respect of their pro-social behaviours or compliance with instructions or rules that an adult has given them.
- 3.14 **TPC:** “John, I am a bit disappointed that you haven’t completed that worksheet yet”, “You need to up your work rate, if you are going to be ready for the exam next week”, and “Sophie, remember. The examiner needs to be able to read your writing” are all examples of **Task Performance Criticism** and *repeated* directions (redirections). Typically, they are critical or corrective comments to students about outcomes from a specified academic activity that has been directed, organised or sanctioned by the class Teacher.
- 3.15 **SBC:** “Stop leaning back on your chair, John and interfering with Phillip. He’s trying to work, even if you are not”, “I need to remind you Blue Table that the rule is ‘keep your hands and feet to yourself’”, and “Kelsey. Enough! I won’t tolerate swearing”, are all examples of **Social Behavioural Criticism** or re-direction comments. Typically, they are *corrective* comments and *repeated* directions addressed to students about anti-social, non-compliant or unacceptable behaviours by an adult.

3.20 Easy Step by Step Calculation of Averages

- 3.21 At the bottom of the **PTIObs6S** recording sheet there are 2 grey rows with 13 vacant white boxes to fill in. This is for the anonymous data required by the researcher. Calculate the time as a percentage that the observed students were ‘On-Task’. To do this, add **S1(fd)** column ticks, **divide by the number of observations** and then **multiply by 100**. Put this number **fd%1** into the labelled box at the bottom of the **PTIObs6S** form.
- 3.22 Repeat this procedure for **S2(fd)**, **S3(fd)**, **S4(fd)**, **S5(fd)** columns. You now have 5 ‘following directions’ percentages: ‘**fd%1**’, ‘**fd%2**’, ‘**fd%3**’, ‘**fd%4**’ and ‘**fd%5**’ in the boxes at the bottom of the recording sheet.
- 3.23 To obtain average student ‘following directions’ time-estimate for the class that you observed as a percentage, add **fd1% + fd2% + fd3% + fd4% + fd5%** and **divide by 5**.

- 3.24 Transfer this figure into the On-Task (**ON%**) box of the **SUKSCB Data Summary Sheet**. Note: If it is a morning observation, you will fill in **Section 2**, left-hand column **a.m.** of the **SUKSCB Data Summary Sheet** or right-hand column **p.m.** for afternoon observation data. To obtain the average student 'Off-Task' time as a percentage, **subtract the same figure (ON%) from 100**. Transfer this figure into the Off-Task (**OFF%**) box on the **SUKSCB Data Summary Sheet**.
- 3.25 Count up: Teacher's **IN**structions, **eX**planations or **eX**positions **INX**. There is an imposed maximum of 5 per time slot so it is possible to calculate a percentage teacher talk time **INX%**. Example: 32 minute observation, 16 x 2 minute time slots. Pupils are observed for 30 seconds in each time slice, so teacher is observed for 1 minute 30 seconds in each time slice. The max. number of tally marks would still be $16 \times 5 = 80$.
- 3.26 Count up: Task Performance Praise comments from **TPP** column, Social Behavioural Praise comments from **SBP** column, Task Performance Criticism comments from **TPC** column, and Social / Behavioural Criticism from **SBC** column. Enter totals into boxes at the bottom of the **PTIObs6S**.
- 3.27 Calculate ratios: Task Performance Praise comments to Social / Behavioural Praise (**TPP:SBC**); and Praise to Criticism ratio (**TPP+SBP**):(**TPC+SBC**). Enter into boxes, bottom right-hand corner of **PTIObs6S**.

STEP 4 Transfer Observation Data to Data Summary Sheet and Email or Post

- 4.1 Record details of the **School Context** for the 2 observations (a.m. and p.m.) on the *SUKSCB Data Summary Sheet*:
- Observer name
 - Educational Psychology Service
 - Post Code of School
 - Locale Type, e.g. Inner City OR Town/Suburban OR Rural/Village
 - Free School Meals (as percentage of school roll)
 - School size as number on school roll

There are then two columns for **Class Context** information, morning and afternoon:

- Date of observation (dd/mm/yy)
- Year group (Yr 0 – Yr 6)
- Gender of Teacher
- Total years teaching
- Time of day of observation, 24 hour clock (hh/mm)
- English / Maths / Science / Other
- Number of Adults in room (not including observer)
- Number of Students in class

- 4.2 Transfer **INX%**, **TPP**, **SBP**, **TPC** and **SBC** into the appropriate boxes on the **SUKSCB Data Summary Sheet**.

- 4.3 When you have finished the pair (a.m. and p.m.) of observations that you have planned, you should have in your possession *one* completed **SUKSCB Data Summary Sheet** in respect of the *pair* of observations. You can, of course, email or post the data from as many pairs of observations as you are able to complete on separate **SUKSCB Data Summary Sheets**. Please email electronically completed SUKSCB Data Summary Sheets to SUKSCBresults@aol.com or post paper copies to: **Brian Apter, District Educational Psychologist, Jennie Lee centre, Lichfield Road, Wednesfield, WV11 3HT**

5. Example of completed PTIObs6S for a 30 minute observation

Survey of UK Secondary Classroom Behaviour (SUKSCB)																
Student Initials (S1/S2/S3/S4/S5): JS/ST/AM/PL/TR Class / Teacher: SL Date: 13/4/08																
Type of lesson: Eng. / Maths / Sci. / Other LSA(s) ID(s): F2 15/BA Class / gp. size: 25																
COL C CODES	+T	S1					S6					START TIME:				
		fd	C	fd	fd	fd	fd	fd	fd	fd	INX	TPP	SBP	TPC	SBC	OBS NOTES
QW=Quiet Working	0	✓	LT	✓	✓	✓	✓	✓	✓	✓						Exposition of lesson by teacher & went through worked model.
OS=Out of seat	2	✓	LT	✓	X	✓	✓	✓	✓							
TP=Talking to peer	4	✓	LT	✓	X	✓	✓	✓	✓							
TT=Talking to teacher	6	✓	LT	✓	X	✓	✓	✓	✓		X					
OE=Occupied with equipment	8	X	TP	✓	X	X	✓	✓	✓						S2 asked teacher point of clarification.	
LT=Listening to teacher	10	X	TP	✓	✓	✓	✓	✓	✓							
WQ=Waiting in queue	12	X	TP	✓	X	✓	✓	✓	✓		1					
HU=Hand up waiting in seat	14	X	TP	X	X	✓	✓	✓	✓							
GS=Gazing into space	16	X	TP	✓	X	✓	✓	✓	✓		11					
CL=On carpet listening	18	X	TP	✓	X	✓	✓	✓	✓		1			11	S1 did not appear to understand work	
HD=Head on desk	20	X	OE	✓	X	✓	✓	✓	✓							
PB=Picking behaviours	22	✓	TT	✓	✓	X	X	X	X	11	1			111		
TA=Individually working with TA	24	✓	QW	✓	✓	✓	✓	✓	✓		1					
Etc.	26	✓	QW	✓	✓	✓	✓	✓	✓		11	1		11	S1 asks for clarification then S1 begins to work	
	28	X	OE	✓	✓	X	✓	✓	✓		111					
	30	✓	QW	✓	✓	✓	✓	✓	✓		11			1	S6 says: "I've shown you already... were you not listening?"	
√=8				15	7	13	15				15	4	0	19		
6/16				15/16	7/16	13/16	15/16				23/30					
NB S1 was not the biggest problem in the class. Waldwell & Memitt's feelings not supported? Teacher needs to increase SBP - feedback to teacher?																
TOTALS																
Avg. On-task	50	+	94	44	81	94	28.75	15	4	0	19	Ratios: TPP/SBP = TPP/SBP & P/C = (TPP+SBP):(TPC+SBC)		15:4		
	= sum(fd% ₁₋₅)/5 =						78.25	INX%	Raw Tallies				14:19			

OTHER CODES: Time (T) = In minutes, following direction (fd): ✓ or ✗, INX first time instruction, or explanation, or exposition; neither critical nor praising (Max: 5 per box.) TPP task performance praise SBP social/behavioural praise, TPC task performance criticism or redirection SBC social/behavioural criticism or redirection

6. Example of Completed SUKSCB Data Summary Sheet ready to be emailed or
SUKSCB Data Summary Sheet

Section 1 – School Context

• Observer name	Brian Apter
• Educational Psychology Service	Wolverhampton
• Postcode of school	WV10 3HT
• Locale type, e.g. Inner City or Town/Suburban or Rural/Village	IC / TS / RV* ^{delete}
• Free School Meals (% school roll)	27%
• School size as number on roll	940

Section 2 – Class Context

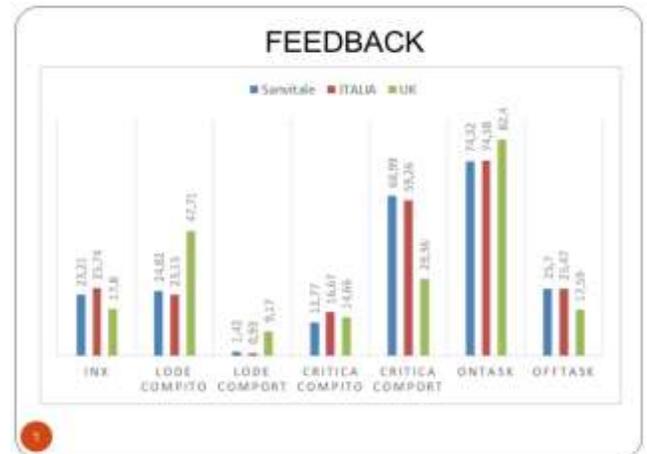
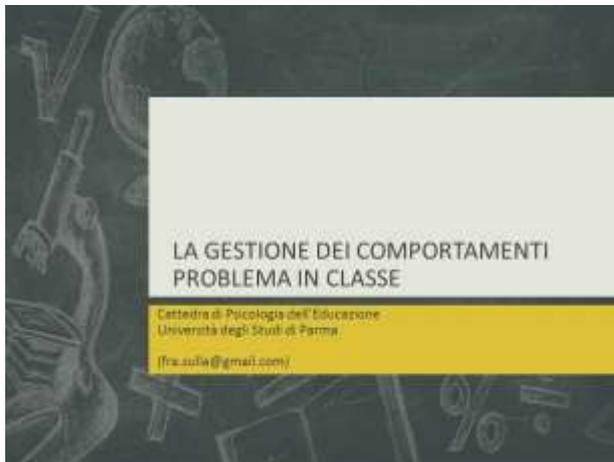
	a.m.	p.m.
• Date of observation (dd/mm/yy)	13/4/08	14/4/08
• Year group (Yr 7 – Yr 11)	7	9
• Gender of Teacher	M / F*	M / F*
• Total years teaching (NQT= 0)	14	14
• Time of day of observation, 24hr clock (hh:mm), e.g. 15:30	9:30	14:40
• English / Maths / Science / Other	E / M / S / O*	E / M / S / O*
• Number of adults in room	3	1
• Number of students in class	25	15

Section 3 – Observation Data

	a.m.	p.m.
• On-Task ON%	78.75%	63%
• Off-Task OFF%	21.25%	37%
• Percentage Teacher neutral verbal behaviour (INX%)	28.75%	14%
• Task Performance Praise comments (TPP) tally	15	4
• Social Behavioural Praise comments (SBP) tally	4	2
• Task Performance Criticism or redirection comments (TPC) tally	0	1
• Social Behavioural Criticism or redirection comments (SBC) tally	19	1
• Duration (minutes) of observation	30	25

Email electronically completed SUKSCB Data Summary Sheets to SUKSCBresults@aol.com or post paper copies to:
 Brian Apter, District Educational Psychologist, Jennie Lee centre, Lichfield Road, Wednesfield, WV11 3HT

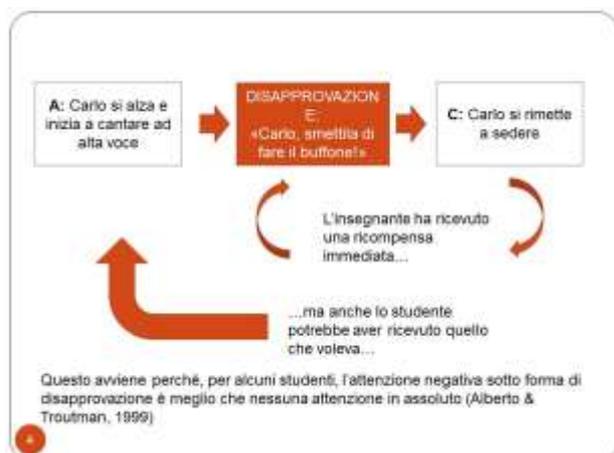
4) Overhead Projections used in presentations of the modified version of ‘Four Essential Steps’ training – Italian version



Perché tendiamo ad usare la disapprovazione più della lode?

A	B	C
Maestra: "Leggi correttamente"	Ishan fa le boccacce	La maestra lo manda fuori

A	B	C
Ishan fa le boccacce	La maestra lo manda fuori	In classe non c'è più nessuno che crei scompiglio



I COMPORTAMENTI PROBLEMA

Escluse le cause organiche (legati a sindromi), la maggior parte dei CP è mediata dall'ambiente sociale. I CP hanno un valore comunicativo e assolvono una funzione per l'individuo.

QUALE FUNZIONE?

ATTENZIONE SOCIALE

Il bambino mette in atto il comportamento per ottenere l'attenzione dell'insegnante e/o dei compagni (es. Carlo)

ANTECEDENTE	COMPORAMENTO	CONSEGUENZA
La maestra spiega il compito a Maria	Fabiola tira i capelli a Luca	La maestra lascia Maria per andare e sgridare Fabiola

6

ACCESSO ALL'OGGETTO/ATTIVITA' PREFERITA

Il bambino mette in atto il CP quando gli viene tolto o negato il gioco/attività preferita

ANTECEDENTE	COMPORAMENTO	CONSEGUENZA
Dario, poco prima di cena, vede le patatine nella dispensa e le chiede alla mamma. La mamma dice di no	Dario comincia a piangere ed urlare	La mamma dà le patatine a Dario

7

FUGA/EVITAMENTO DEL COMPITO

Il bambino mette in atto il CP per evitare un compito/attività troppo difficile o troppo facile (es. Ishan)

ANTECEDENTE	COMPORAMENTO	CONSEGUENZA
La maestra presenta il compito di matematica	Gianni inizia a piangere e dire di aver mal di pancia	La maestra fa chiamare la mamma di Gianni e Gianni va a casa

8

- Lo stesso CP può avere più di una funzione
- CP diversi potrebbero avere la stessa funzione
- Non è detto che il CP sia intenzionale o consapevole

9

COME INTERVENIRE

PREVENIRE È MEGLIO CHE CURARE!

Strategie:

- **PROATTIVE**, invece che reattive: prevenire i comportamenti problema, lavorando sugli antecedenti e promuovendo strategie alternative. Non definisce modalità di «risposta» ai comportamenti problema, ma li anticipa. Lavora prevenendo i comportamenti negativi e crea attivamente tutte le condizioni perché il soggetto sviluppi strategie alternative positive;
- **OTTIMISTICHE**: valorizzanti e orientate allo sviluppo di comportamenti positivi, alternativi, antagonisti al comportamento problema.

10

LE REGOLE

- Regole positive che dicono al bambino COSA FARE invece di cosa NON fare (altrimenti si rischia che la regola diventi interpretabile)
- Non più di 5 (alla scuola primaria l'ideale è tra le 3 e le 5)
- Servono a rendere chiare e inequivocabili ai bambini le vostre aspettative
- Sono ancora più efficaci se nascono in seguito alla negoziazione e alla discussione con tutta la classe. In questo modo i bambini le sentiranno come proprie.

11

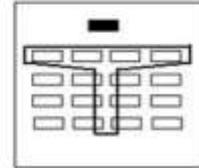
LE REGOLE



DISPOSIZIONE DEI BANCHI

Nell'ambito della disposizione tradizionale in file, ci sono differenze nel coinvolgimento degli studenti a seconda della loro posizione. Gli studenti seduti nella cosiddetta «action zone» - forma a T o a triangolo - (Marx et al., 2000) sono più coinvolti durante la lezione.

È raccomandabile, pertanto, che gli studenti che si distraggono con più facilità si siedano in uno dei posti compresi nella «action zone». Questo diminuirà la probabilità che siano off-task e incrementerà il numero di interazioni con l'insegnante.



I 4 PASSI ESSENZIALI

1. FA SI CHE LE ISTRUZIONI SIANO CHIARE E INEQUIVOCABILI

- ◆ Prima ancora di dare la prima istruzione è importante accertarsi che tutti siano in ascolto
- ◆ «I C, tutti gli occhi e le orecchie a me»
- ◆ Subito dopo aver dato l'istruzione, controlla chi ha recepito e riconosciglielo: «Bravissimi bimbi in prima fila: voi siete pronti ad ascoltare! ... Molto bene Kevin, sono contento che tu sia già pronto»
- ◆ A quel punto siamo pronti per iniziare...
- ◆ «Aprite il quaderno alla pagina nuova e prendete il pastello verde, poi aspettate la mia prossima istruzione»

Sebbene le istruzioni varino a seconda dell'età dei bambini e del tipo di lezione, contengono sempre alcuni elementi essenziali:

1. Sono chiare e semplici. Non sono aperte ad interpretazioni. Sono osservabili. No «State buoni», ma «occhi rivolti a me e bocche chiuse».
2. Sono limitate in termini di numero. Non ci aspettiamo che un bambino ricordi più di 3 elementi di un'istruzione alla volta.
3. Menzionano livello di rumore accettato e materiale che serve.

I primi 5 minuti della lezione sono fondamentali per stabilire il tono della lezione. È fondamentale che **TUTTI** i bambini abbiano chiaro cosa ci si aspetta che facciano al fine di prendere parte alla lezione.

I bambini più piccoli o le classi nuove potrebbero avere bisogno, almeno all'inizio, di più tempo per capire come funziona.

Due strategie molto efficaci sono...

1. VERIFICA LA COMPRENSIONE



«Nicole, di quale libro abbiamo bisogno? Esatto, il sussidiario. Luigi, a che pagina dobbiamo aprire il sussidiario? 64, esatto! Avete tutti aperto il sussidiario a pagina 64? Molto bene!»

18

2. ROLE PLAYING PER DIMOSTRARE
COSA BISOGNA FARE

«Io volevo che vi divideste in gruppi e, in silenzio, vi metteste ai quattro angoli. Il gruppo dei verdi ha fatto come dicevo: sono andati al loro angolo in fila e senza parlare. Verdi, potreste farci vedere come avete fatto? Guardate come camminano – non corrono – e vanno in silenzio agli angoli. Molto bene verdi. Ora vediamo se i rossi riescono a fare come loro»

19

2. DOPO OGNI ISTRUZIONE INDIVIDUA I
BAMBINI CHE TI HANNO ASCOLTATO E
LODALI

ISTRUZIONE: «Il B, mettetevi in fila, in silenzio e aspettate che vi dica quando uscire»

«Mana, mi hai sentito?! Ti ho detto di metterti in fila... Guido, ti dispiacerebbe metterti in fila come gli altri?.. Alfonso, tu non fai parte di questa classe? Per favore, mettili in fila!»

Cosa c'è di sbagliato in questa strategia?

Mette sotto i riflettori coloro che si comportano male e ignora coloro che stanno seguendo l'istruzione

«Carlo, sei già pronto e in fila che aspetti? Molto bene!.. Brava Giulia, è proprio questo che intendo per stare in silenzio... Bravi il B, ci siamo quasi e siete tutti molto silenziosi... così si fa!»

Questo dà anche l'opportunità ai bambini che non avevano prestato attenzione all'istruzione iniziale di riascoltarla

20

La tecnica di dare attenzione ai bambini che seguono l'istruzione può essere utilizzata, non solo per quanto riguarda il comportamento/condotta, ma anche per dare enfasi all'**istruzione di tipo accademico**

«Lasciate un attimo giù la penna e ascoltate, voglio leggervi quello che Miriam ha appena scritto...sentite come ha utilizzato gli aggettivi, «cattivo» e «brutto» per descrivere il mostro; questo è esattamente quello che volevo...molto brava Miriam!»

«So che questa cosa nuova delle decine e delle unità è un po' complicata...ma è importante che mettiate le decine e le unità in colonne diverse...guardate come ha fatto Karim: le unità scritte in blu nella colonna di destra e le decine scritte in rosso in quella di sinistra. Molto bene Karim. Vediamo se trovo altri tuoi compagni che hanno fatto in questo modo...»

21

La tecnica di dare attenzioni agli allievi che hanno seguito le direzioni dell'insegnante ha un triplice effetto:

- (1) gli allievi che ricevono l'approvazione si sentiranno felici e soddisfatti con sé stessi per via dell'attenzione ricevuta dalla maestra, quindi con molta probabilità riproporranno lo stesso comportamento in futuro;
- (2) l'istruzione o la direzione dell'insegnante viene ripetuta una seconda volta, in maniera che, se anche qualcuno non avesse sentito cosa deve fare, abbia l'opportunità di riascoltarlo;
- (3) avendo come modello gli studenti che hanno ricevuto l'approvazione, tutti gli altri sanno come dovranno comportarsi se vogliono ricevere l'attenzione positiva dell'insegnante

22

QUINDI...

RICORDA DI GUARDARE AL COMPORTAMENTO
CHE VUOI CHE METTANO IN ATTO



INVECE CHE A QUELLO **CHE NON VUOI** CHE METTANO IN ATTO



23

Dai l'istruzione



24

Individua i bambini che stanno eseguendo le tue direzioni



25

Dici il nome del bambino, ripeti l'istruzione e aggiungi una lode



26

3. LODA FREQUENTEMENTE I BAMBINI CHE FANNO QUELLO CHE GLI È STATO CHIESTO DI FARE

Lo span attentivo di ciascuno di noi è limitato. Quello dei bambini lo è ancora di più rispetto a quello degli adulti. La classe è un ambiente pieno di persone e può essere un ambiente pieno di distrazioni per un bambino. Per questo, i bambini hanno bisogno di essere incoraggiati affinché rimangano sul compito. Questo può essere facilmente fatto lodandoli.

Affinché la lode sia efficace dev'essere...

27

1. INDIVIDUALIZZATA



Includere il nome del bambino o dei bambini «Bravo Andrea che alza la mano per chiedere la parola», invece che «Bravo» e basta.

28

2. SINCERA



I bambini sono molto bravi a capire quando gli stiamo facendo un complimento sincero

29

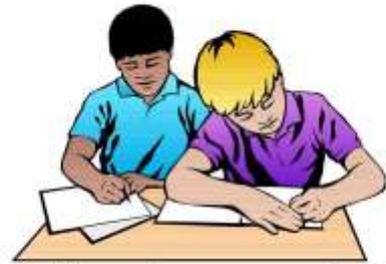
3. APPROPRIATA ALL'ETA'



I più grandi apprezzano i complimenti fatti in maniera privata e personale

30

4. DESCRITTIVA



Il bambino ha bisogno di sapere per cosa lo stiamo lodando: «Marco, sei seduto in maniera proprio composta!» ...che serve anche a ricordare al resto della classe cosa dovrebbero fare per ottenere le attenzioni positive della maestra

31

Ricordatevi di cambiare la frequenza delle lodi a seconda della situazione.

Bisognerà utilizzare molte più lodi per i comportamenti appropriati quando:

- si sta iniziando un'attività nuova;
- quando si passa da un'attività ad un'altra;
- quando si percepisce che la classe sta per iniziare a diventare irrequieta

32

CONSIGLIO: Soprattutto nella prima fase, in cui il nuovo comportamento (alternativo al comportamento problema) ha bisogno di lodi più frequenti perché entri nel repertorio del bambino, l'insegnante può tenere accanto a sé, sulla cattedra un foglietto. Segnerà con una stanghetta le sue disapprovazioni. Il suo scopo sarà quello di dare almeno 3 approvazioni per ciascuna disapprovazione data. Il **rapporto 3:1** (approvazioni:disapprovazioni) è il rapporto ideale. In alternativa il collega in compresenza può farlo con voi e viceversa.

DISAPPROVAZ	APPROVAZ

Dopo che un comportamento è stato appreso lodandolo SEMPRE, diventa ancora più stabile nel repertorio del bambino se lodato in maniera INTERMITTENTE. Lo scopo ultimo è quello che il bambino si comporti come gli altri senza avere un trattamento speciale. Il trattamento verrà rimosso, sfumandolo, quando ci rendiamo conto che il comportamento è ormai stabile (anche se non lodo sempre, continua ad essere messo in atto).

33

4. SII PRONTO A GESTIRE I COMPORTAMENTI INAPPROPRIATI

Esistono essenzialmente tre tipi di comportamento inappropriato che tutti gli insegnanti riconosceranno. È importante notarne le differenze, poiché richiedono strategie differenti.

1. Comportamenti off-task non disturbanti
2. Comportamenti off-task disturbanti
3. Comportamenti inappropriati gravi

34

1. Comportamenti off-task non disturbanti

- ◆ Tipico dei bambini che hanno perso la concentrazione. L'insegnante, con uno sguardo panoramico sulla classe, li nota immediatamente.

Guardare fuori dalla finestra; giocherellare con la penna; dondolarsi sulla sedia.

- ◆ Non interferiscono con la classe, ma è meglio intervenire subito prima che diventino comportamenti off-task disturbanti
- ◆ L'importante è ignorare il comportamento scorretto.
- ◆ Due strategie efficaci:

35

1. L'occhiata



Vai vicino al bambino, cerca di incrociare il suo sguardo e fai un'espressione accigliata o fai il suo nome: «Come tutti sapete, soprattutto Luca, la radice di 49 è 7. Vero Luca?»

36

2. La lode ai vicini



La lode va data ai due bambini più vicini a colui che è deconcentrato: «Brava Giulia, bravo Marco, sono contento che siate concentrati e abbiate quasi terminato il lavoro».

Il trucco è non far sì che l'attenzione della classe si sposti dal compito al compagno che viene richiamato!!!

37

2. Comportamenti off-task disturbanti

Parlare coi compagni quando non è il momento, parlare senza chiedere la parola, fare commenti inappropriati, alzarsi dal posto, girovagare per la classe

Ignorare questo tipo di comportamenti potrebbe avere meno senso. Probabilmente non è l'attenzione dell'insegnante che li tiene in vita, quanto il piacere di fare due chiacchiere col compagno o evitare il compito

38 Strategia...

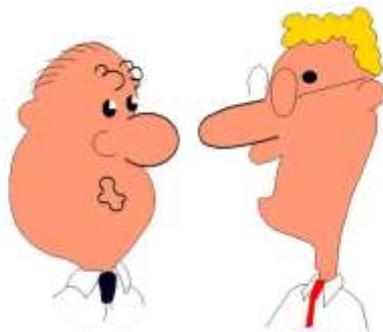
1. Mantenere la calma



Gestire il comportamento inappropriato col minimo affanno, così da evitare di attirare l'attenzione della classe e fare il gioco del bambino: attirare l'attenzione o far smettere l'attività

39

2. ANDARE VICINO



40

3. CERCARE IL CONTATTO OCULARE



41

4. RIPETERE CIO CHE CHI ASPETTIAMO CHE FACCIAMO IN MANIERA CHIARA

Concentrandoci sul comportamento desiderato, invece che su quello indesiderato

«Giacomo, vorrei che tornassi al tuo posto per favore. Ricorda le regole della classe»

«ma mi serve la gomma»

«ritorna al tuo posto. Dovresti avere una gomma, se no, bisogna che tu alzi la mano per chiederla. Per favore torna al tuo posto e dopo risolviamo il problema della gomma»

42 Quando torna al posto, **RICORDARSI** di lodarlo

Con alcuni, ci sarà bisogno di utilizzare la tecnica del DISCO ROTTO



«Debbie, voglio che lavori in silenzio, ricordi la regola?»

«maestra, è Lucia che ha iniziato a parlarci»

«Debbie, penserò dopo a Lucia, ho bisogno di vederti lavorare in silenzio»

«ma è lei che parla»

«Debbie, voglio che finisci il lavoro in silenzio»

«maestra, sgridi sempre con me»

«Debbie, ti ho detto cosa voglio che tu faccia... voglio che ti rimetti a lavorare in silenzio... fai la scelta giusta... ben fatto!»

43 MAI METTERSI A DISCUTERE CON UN BAMBINO E PERDERE DI VISTA IL COMPORTAMENTO DESIDERATO

3. Comportamenti inappropriati gravi

Picchiare i compagni, danneggiare oggetti, dire parolacce o insultare

Strategia:

Time out fuori dalla classe o dal preside (assicurandoci che fuori non riceva conseguenze piacevoli)

«Marco, è assolutamente inaccettabile alzare le mani coi compagni. Fuori dalla classe!»

44 Il time out deve essere proporzionale all'età:
anni del bambino = minuti di time out

RICORDA:

Le punizioni è come il petrolio – altamente infiammabile -, utilizzala solo in maniera coerente, sistematico, prevedibile.

La punizione non insegna un comportamento alternativo. Quello che può modificare il comportamento del bambino è la seconda parte della strategia: l'elemento ristorativo.

È importante separare la punizione dall'elemento ristorativo. Quando il bambino è fuori di sé, non è il momento di spiegargli perché sta sbagliando/qual è l'errore.

Prima che il tempo del time out sia finito, l'insegnante può uscire e parlare col bambino prima di riportarlo in classe.

COSA SI OTTIENE CON LA PUNIZIONE?



46

Proibisce di mettere in atto il comportamento inadeguato, ma non ne insegna uno alternativo



47

Può sembrare efficace nell'immediato,
ma poi ci invischia in un circolo vizioso



48

Alle volte funziona, ma il suo effetto tende
a diminuire nel tempo, quindi ci porta ad
usare sanzioni sempre più severe



49

Può produrre comportamenti di
evitamento/fuga



50

Fornisce un modello aggressivo



51

Sono stressanti e tolgono tempo
alla lezione



52

Provocano nel bambino reazioni
emotive indesiderate

Pianto o aggressione



53

I comportamenti appropriati possono essere insegnati solo con la lode di comportamenti che più si avvicinano a quello desiderato



14

“Nessun bambino è perduto se ha un insegnante che crede in lui.”

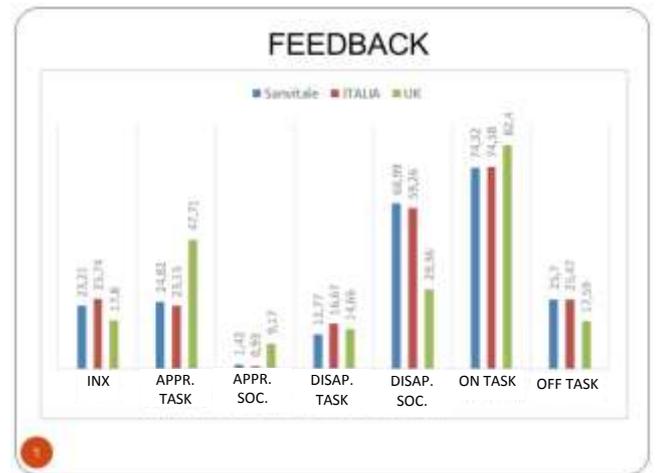
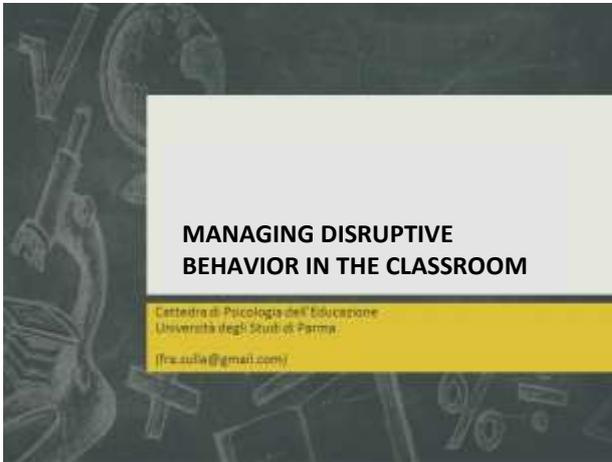
Bernhard Bueb



giavadea.com

15

5) Overhead Projections used in presentations of the modified version of ‘Four Essential Steps’ training – English version



Why do we tend to use disapproval more than approval?

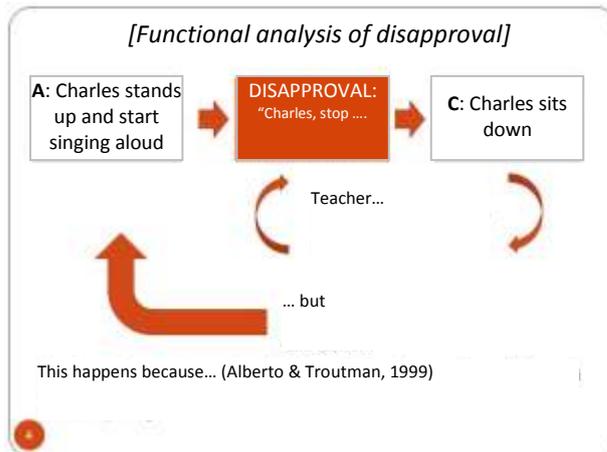


[video tape]

[Functional analysis of the behaviours shown in the video tape]

A	B	C
Teacher says "please, read"	Ishan grimaces and screams	Teacher sends him out of the class - where he can play and avoid the task

A	B	C
Ishan grimaces and screams	Teacher sends him out of the class	Teacher gets silence (removes the aversive stimulus)



PROBLEM BEHAVIORS

Problem behavior also has a function for children

WHICH FUNCTION?

SOCIAL ATTENTION

ANTECEDENTE	COMPORAMENTO	CONSEGUENZA
The teacher is talking with Maria	Fabiola yank Lucia's hair	The teacher stop talking with Maria and goes to Fabiola

ACCESS TO DESIRED OBJECT / ACTIVITY

ANTECEDENTE	COMPORAMENTO	CONSEGUENZA
mum says "no, you can't eat crisps before dinner"	B: Dario has a tantrum	mum gives crisps to Dario

ESCAPE FROM DIFFICULT INSTRUCTIONS

ANTECEDENTE	COMPORAMENTO	CONSEGUENZA
Math test	Gianni starts to cry and says he is got stomachache	The teacher allows Gianni to call his mother and go home

- same problem behaviours may have more than a function
- different problem behaviours may have same function
- problem behaviour may be unintentional

WHAT TO DO?

PREVENTION IS BETTER THAN CURE!

Strategies:

Do use proactive – instead of reactive – strategies.

ANTECEDENTS strategies to promote appropriate classroom behaviour:

10

RULES

only use positive rules that tell pupils what they can do, rather than what they can't do;

use a maximum of 5 rules;

Rules may be more effective if they are generated through negotiation and discussion with your class. In this way, the pupils have ownership of them too

11

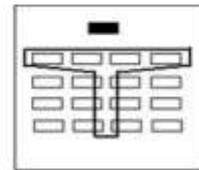
RULES



12

DESK ARRANGEMENT

Within the rows arrangement, there seem to be differences in student involvement dependent on position, with an "action zone" of increased involvement across the front and down the middle of the room



13

4 ESSENTIAL STEPS

14

1. ALWAYS MAKE YOUR REQUIREMENTS ABSOLUTELY CLEAR

- It is vital that all teachers inform the class exactly what they want the pupils to do at all times during the class. Never assume they already know.

15

Keep the requirements simple – limit the number;

Requirements must be observable;

Requirements must relate to how the pupil is to participate in the activity;

Requirements must relate to how the pupils' behave in order to be successful.

16

Young children might need more time...

Two effective strategies are:

17

1. Question the child for understanding



"Nicole, which book do we need? Right,"

18

2. Role play with children



19

2. FOLLOW ANY INSTRUCTION OR DIRECTION BY LOOKING FOR THOSE PUPILS WHO ARE DOING AS THEY HAVE BEEN ASKED AND ACKNOWLEDGING THEM

"Listen, class, I now want you to line up quietly at the door...Well done, Julie, I see you're ahead at the rest, you've already lined up...Good to see all of table 5 on their way...We're almost all there, an we're all quite...Well done everyone"

20

This technique can be also used to emphasise teaching points, such as:

"Listen in class, I want to read you something that Miriam has just written...see how she used adjectives, 'mean' and 'ugly' to describe the monster; that's just what I'm looking for...well done Miriam!"

"I know this business of tens and units is difficult...but it is so important to write both the tens and the units in separate columns...look hare at Tom's. See, he has the tens here in one column and the units to the right in another column. Let's see if I can find other people who have done the same"

21

The effect of this technique is threefold.

1. It acknowledges those children who have done as they have been asked, they feel good about themselves as a result of the attention they have been given, and they will therefore, at least in theory, be more likely to do the same thing again.
2. It allows the instructions or teaching point to be repeated to the whole class, which, in turn, allows all children to be aware of the expectations of the teacher.
3. It informs all the class what they need to do in order for them to receive praise for their work or behavior.

22

THEREFORE...

REMEMBER TO LOOK FOR THE BEHAVIOUR YOU WANT



RATHER THAN THE BEHAVIOUR YOU DONT' WANT



23

Give requirements



24

Catch the children following requirements



25

Say name, repeat requirements and use an approving comment



26

3. Frequently acknowledge children when they are doing what is required

Feedback for appropriate behavior may appear to have little effect in the short term but will actually teach new behavior habits and social skills.

Appropriate feedback for children must be...

27

1. INDIVIDUALISED



As far as possible include the name of the pupil or the pupils. Thus: "Well done, Jimmy, that's very neat writing" is better than, "That's good work"



2. SINCERE



Young people are acutely aware when teachers and others mean what they say. It is therefore vital that any feedback is sincerely given



3. AGE APPROPRIATE



"Let's give a class clap to Marco for this lovely painting" works well in an infant class, but would be counterproductive delivered to a group of teenagers. Generally speaking, older pupils tend to appreciate feedback delivered personally and privately.



4. DESCRIPTIVE



All pupils need to know why they are being praised: "Very well, Marco, you are sitting properly!". It reinforces that particular aspect of the young person's behavior and it reiterates to other pupils within hearing distance what it is that you are hoping all the pupils in the class will achieve.



Remember...

Once pupils are settled to a task the amount of feedback teachers give to the pupils can be reduced.

However, the amount of feedback needs to be increased when pupils are expected to move from one activity to the next and, of course, if the teacher notices the class is becoming restless.



For each disapproval you gave, give at least three approval. You can note each instance during a couple of short periods in your lesson. Otherwise, find a trust colleague in school and offer to observe one another.

DISAPPROVAL	APPROVAL
I	III
I	III
I	III

Once a behaviour has been learned by continual reinforcement it become stronger if it is only reinforced intermittently.



4. Always know exactly what to do to deal with inappropriate behaviour

There are essentially three types of inappropriate behavior that most teachers would recognize. It is important for teachers to note the difference as the three types of behavior all require a different strategy. These 3 types of behavior are:

1. Non-disruptive off-task behaviour
2. Disruptive off-task behaviour
3. Severe disruptive behavior that stops the class from functioning



1. NON-DISRUPTIVE OFF-TASK

This is the type of behavior that is typical of pupils who have lost concentration. The teacher should be able to notice these pupils when scanning the class. The behavior such as staring out of the window, doodling, playing with their pencil or rocking on the chair does not interfere with other children, but it is important that is dealt with quickly because it is the type of behavior that can lead to potentially more disruptive behavior.

When dealing with this type of behavior, it is important not to draw attention to the behavior that you don't want.

Two strategies:



1. THE LOOK



Simply making eye contact with the pupil and frowning, by standing next to the pupil or by simply mentioning his name. e.g. "As you all know, especially Paul, the square root of 49 is 7; isn't it Paul?"



2. PROXIMITY PRAISE



Praise is given to two pupils seated near the "off-task" student, e.g. "Well done Julie, well done Peter, I can see you're both concentrating well and finishing your writing"



2. LOW-LEVEL DISRUPTIVE BEHAVIOUR

Is essentially any behavior by one pupil that stops other pupils from learning (e.g. talking, shouting out, making inappropriate comments, pushing, leaving seat, walking around the room)

Strategies...



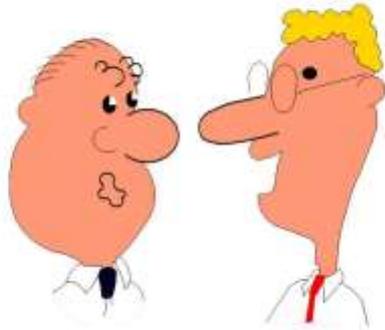
1. STAY CALM



Disruptive behavior is best dealt with by the minimal amount of fuss and without drawing attention of the rest of the class to the teacher's intervention



2. GET CLOSE



40

3. USE EYE CONTACT



41

4. STATE EXPECTATIONS CLEARLY AND QUIETLY

Giacomo, I need you to return to your seat please, you know the class rule.

But sir, I just need a rubber.

Jimmy, I need you to return to your seat, there should be a rubber on your table, if not you should have put your hand up...please, return to your seat and then we can sort out the rubber

GOOD CHOICE, GIACOMO, I'LL SORT OUT THE RUBBER

42

With some pupils it may be necessary to use the “broken record” technique



Debbie, I need you to work quietly, you know the rule about not talking.

But sir, Lucia started talking first.

Debbie, I'll deal with Lucia next....I need to see you working quietly. But she started talking to me.

Debbie, I need you to finish your work off in silence.

Sir, you're always picking on me.

Debbie, I've told you what I want. I need you to finish off the work in silence. Make the right choice. Well done!

43

AVOID ARGUMENT AND FOCUS ON THE DESIRED BEHAVIOUR

3. SEVERLY DISRUPTIVE BEHAVIOURS

Willfully hurts another child; deliberately damage property; over refuses to do as they are told; engages in behaviours that stops other from learning; engage in racist language or behavior.

The teacher needs to intervene as soon as possible, not offer the pupil any choices but state very clearly: “Marco, that is unacceptable behavior. I need you to go to the referral room at once!”

TIME OUT should be time limited (time spent in time out should be related to the age of the child)

44

REMEMBER:

Any form of time out is only of limited value in changing pupils' behavior. There is no evidence that punishments of any form have any measured effect on changing pupils' behavior. What changes pupils' behavior is the second element of the intervention, the restorative element. When pupils have lost their temper or been really confrontational, it is not the time to explain to them the error of their ways. This is far better achieved when tempers have cooled and the pupils have had time to reflect.

45

WHAT DO SANCTIONS ACHIEVE?



46

They may prohibit, but they do not teach alternative appropriate or acceptable behaviours



47

They may be effective in the short run and this will encourage the teacher to persevere with them, producing a vicious circle



48

Sometimes they work, but their effect tends to diminish over time, thus calling for more and more severe sanctions



49

They may lead to escape or avoidance behaviour



50

They provide an aggressive model



51

They can be stressful for the teacher and they are certainly time consuming



They often lead to unwanted emotional reactions from the children

Crying, sulking or even aggression



We can teach appropriate behaviours only if we praise those behaviors that are the most similar to the desired one.



No child is lost if he/she has a teacher who trust in him/her

6) Social validity questionnaire (Italian version)

	Fortemente in disaccordo	In disaccordo	Indifferente	D'accordo	Fortemente d'accordo
1. In passato ho utilizzato strategie simili a quelle proposte nella formazione	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Le mie conoscenze rispetto alle strategie proposte sono aumentate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Mi sento più abile nella gestione della classe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. L'utilizzo delle strategie apprese ha avuto un impatto positivo sulla condotta dei miei studenti	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. In seguito all'implementazione delle strategie proposte percepisco un miglioramento nel mio benessere psico-fisico	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Le strategie proposte sono facili da implementare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Le strategie proposte non sono dispendiose in termini di tempo e fatica	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Il dirigente ha supportato la mia scelta di prendere parte alla formazione	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. è valsa la pena usare due ore del mio tempo per prendere parte alla formazione	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Raccomanderei questa formazione ad altri insegnanti	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ulteriori commenti (facoltativo):

7) Social validity questionnaire (English version)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. In the past, I have used strategies similar to the ones suggested	<input type="checkbox"/>				
2. My knowledge (i.e. information learned from the program) in the application of strategies aimed at managing disruptive behaviour in class has increased	<input type="checkbox"/>				
3. My skills (i.e. personal tools gathered from program, abilities) in the application of strategies aimed at managing disruptive behaviour in class have increased.	<input type="checkbox"/>				
4. The training made a positive impact within my class	<input type="checkbox"/>				
5. The implementation of the strategies suggested made a positive impact on my well-being	<input type="checkbox"/>				
6. The strategies suggested are easy to implement	<input type="checkbox"/>				
7. The strategies suggested are reasonable (i.e. not asking too much, manageable)	<input type="checkbox"/>				
8. Our school's administrative leadership was supportive (i.e. provided help, facilitated implementation)	<input type="checkbox"/>				
9. The training was worth the time and effort invested	<input type="checkbox"/>				
10. I would recommend this training to other teachers	<input type="checkbox"/>				

Further comments (if you had any):

8) Module Feedback Form (Italian version)**1. Il corso mi è piaciuto**

Molto in disaccordo In disaccordo Né d'accordo né in disaccordo D'accordo Molto d'accordo

2. Il corso ha soddisfatto o superato le mie aspettative

Molto in disaccordo In disaccordo Né d'accordo né in disaccordo D'accordo Molto d'accordo

3. Il corso è stato interessante e stimolante dal punto di vista intellettuale

Molto in disaccordo In disaccordo Né d'accordo né in disaccordo D'accordo Molto d'accordo

4. Sono soddisfatto della qualità dell'insegnamento

Molto in disaccordo In disaccordo Né d'accordo né in disaccordo D'accordo Molto d'accordo

5. Il docente e lo staff erano disponibili a dare chiarimenti

Molto in disaccordo In disaccordo Né d'accordo né in disaccordo D'accordo Molto d'accordo

6. Il docente ha presentato con passione i contenuti del corso

Molto in disaccordo In disaccordo Né d'accordo né in disaccordo D'accordo Molto d'accordo

7. Il modo in cui sarei stato valutato in questo corso è stato ben chiarito

Molto in disaccordo In disaccordo Né d'accordo né in disaccordo D'accordo Molto d'accordo

8. Le valutazioni delle prove svolte in itinere davano informazioni utili sul come potevo migliorare

Molto in disaccordo In disaccordo Né d'accordo né in disaccordo D'accordo Molto d'accordo

9. Sono complessivamente soddisfatto dei feedback ricevuti

Molto in disaccordo In disaccordo Né d'accordo né in disaccordo D'accordo Molto d'accordo

10. Ulteriori commenti e/o consigli riguardo il corso

9) Module Feedback Form (English version)

1. I did like the course

Strongly disagree Disagree Neutral Agree Strongly agree

2. The course exceeded my expectations

Strongly disagree Disagree Neutral Agree Strongly agree

3. The course was stimulating and thought provoking

Strongly disagree Disagree Neutral Agree Strongly agree

4. I did like the professor

Strongly disagree Disagree Neutral Agree Strongly agree

5. The professor was willing to give clarifications

Strongly disagree Disagree Neutral Agree Strongly agree

6. The professor presented with passion the course contents

Strongly disagree Disagree Neutral Agree Strongly agree

7. The way I would have been assessed had been clarified

Strongly disagree Disagree Neutral Agree Strongly agree

8. The feedback I received was useful

Strongly disagree Disagree Neutral Agree Strongly agree

9. I am satisfied with the feedback I received

Strongly disagree Disagree Neutral Agree Strongly agree

10. Further comments

