

Early results from developing and researching the Webster-Stratton Incredible Years Teacher Classroom Management Training Programme in North West Wales.

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## **Abstract**

The evidence based *Incredible Years Teacher Classroom Management (TCM) Programme* was developed to meet the demand from teachers for strategies to manage disruptive behaviours in the classroom (Webster-Stratton 1999). This paper describes the programme and reports on its first use in the UK. In the first study twenty-three teachers attended the five day classroom management programme. All teachers implemented the training in their classrooms and reported that the strategies taught were effective and improved pupils' conduct. In the second study blind observation of teacher classroom behaviour was undertaken in 21 classes, where 10 had received the TCM training and 11 had not. Teachers who received TCM training gave clearer instructions to children and allowed more time for compliance before repeating instructions. The children in their classes were more compliant than children in untrained classes. The implications of these findings are discussed.

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## **Introduction**

Growing numbers of children start school with disruptive behaviour problems and deficits in the linguistic and social skills necessary to engage with an academic curriculum (Webster-Stratton, 1999). Seven to twenty per cent of children meet diagnostic criteria for conduct disorder (Webster-Stratton & Hammond, 1998). These children exhibit both social and academic difficulties (Williams, Zubrick, Silburn, & Sanders, 1997), have problems in forming social relationships and are often rejected by their peers (Coe, 1990). Without help, the prognosis for these children is poor. Early-onset child conduct disorder is a powerful predictor of poor long-term outcomes, including mental health problems, delinquency, academic underachievement, unemployment and drug abuse (Kazdin, 1985).

The nature of the teacher-child relationship has an important influence on the behaviour and achievement of children (e.g., Birch & Ladd, 1998; Hughes, Cavell & Willson, 2001). Negative teacher-pupil relationships, that arise from dealing with increasing numbers of challenging children, are at the heart of the many problems in the classroom and more and more teacher time is spent dealing with aggression or misbehaviour (Webster-Stratton, Reid and Hammond, 2001a). Hamre & Pianta (2001) examined the extent to which pre-school teachers' perceptions of their relationships with their pupils predicted a range of school outcomes eight years later. Negative teacher-pupil relationships in pre-school were related to academic and behavioural problems in 8th grade.

Teachers often report feeling ill-equipped by their training courses for the challenges that they will meet in the classroom, especially where this relates to classroom management

(Latham, 1997). Many feel unprepared for the demands of managing classroom behaviour (Rigden, 1996).

Classroom management training promotes the use of appropriate approval and disapproval. This has its effect on both individuals and the classroom as a whole (Bristol, 1976). In a world wide longitudinal study into teachers' classroom management skills, Latham (1997) found that over 90% of appropriate behaviours went unrecognised by teachers, who were two to five times more likely to attend to misbehaviour than appropriate behaviour, thus often reinforcing inappropriate behaviour. This effect is particularly likely to occur for children with difficulties (Walker & Buckley, 1973) and antisocial children are much less likely to receive teacher encouragement for appropriate behaviour and more likely to be punished for misbehaviour than well-behaved children. When disruptive pupils are put together in special classes, disapproval statements can out-number approval statements by 15 to 1 (Latham, 1992). After teacher classroom management training however, the situation is reversed: 4 disapproval statements for every 167 positive, approval statements (Shores, Gunter & Jack, 1993).

Early years teachers are in a key position to help children to develop the necessary prerequisite skills that enable them to benefit from their time in school. Furthermore, if children learn the social and relationship skills needed to fit in at school, the likelihood of them becoming persistent offenders in adolescence is greatly reduced, even if they continue to have poor relationships within their own families (Webster-Stratton, 1999). It is important to ensure that early schooling provides children with opportunities to learn the essential social, self-management, and problem solving skills that enable them to benefit from their

education. Unfortunately, when education authorities make decisions about teacher classroom management programmes surprisingly few adopt empirically supported interventions such as the Incredible Years programme (Kazdin, Bass, Ayers, & Rodgers, 1991).

### *The Incredible Years Series*

The Incredible Years series is a set of three inter-linked programmes for parents, teachers, and children designed by Carolyn Webster-Stratton to promote children's social, emotional, and academic competence. The programmes were developed initially as treatment interventions for referred children aged between three and eight years. More recently they have been implemented and evaluated as preventive intervention programmes in community settings. Over the last 20 years the programmes have been extensively evaluated and have a strong evidence base for efficacy in reducing conduct problems and aggression, and in increasing social competence, both at home and in school (Webster-Stratton, Mihalic, Fagan, Arnold, Taylor, & Tingley, 2001b).

The *Incredible Years* programmes have been identified, in many systematic reviews of evidence-based interventions, as having strong evidence of effectiveness in reducing or preventing violence. This evidence comes from high quality randomised controlled trials conducted in America, Canada, Norway, England and Wales. They have been designated as “*Blueprint*” programmes by the Center for Violence Prevention at the University of Colorado (Webster-Stratton, et al 2001b) because of their strong evidence base using report and blind observation measures, randomised controlled designs and having been independently replicated. The parent programmes teach parents to build positive relationships, to increase child positive behaviour, to set effective limits and to manage misbehaviour effectively. Later

components teach adult relationship and problem-solving skills and how to help children's academic skills and promote home-school links. The 'child' Dinosaur School programme develops children's social and emotional competence through a series of programmes to help children to detect and understand feelings, to problem solve and manage anger, to do their best in school and to make and keep friends. It was initially developed and researched as a therapeutic programme for groups of six referred children and has since been adapted and researched as a universal preventive classroom intervention suitable for key stage one pupils (Webster-Stratton & Reid, 2002a; Webster-Stratton & Reid, 2002b; Webster-Stratton & Reid, 2004)..

*The IY Teacher Classroom management (TCM) programme:*

The teacher programme strengthens teacher-pupil relationships and develops children's social and problem-solving skills by increasing teacher competencies and improving home-school links (Webster-Stratton, 1999, Webster-Stratton et al 2001a), Webster-Stratton et al 2001b)

. The programme has three core themes:

- to suggest ways that teachers can collaborate with parents in addressing their students' educational and emotional needs;
- to present a variety of classroom management strategies to strengthen children's social and academic confidence; and
- to illustrate how teachers can set up individualised programmes to address the specific needs of high risk children.

The programme helps teachers to develop a "toolkit" of strategies represented by the teacher pyramid as shown in the figure 1

(insert figure 1 about here)

Teachers are first helped to build positive relationships with children and parents that are hard to engage and to prevent problems, using strategies that help to achieve increased compliance such as classroom rules, specific instructions and clear transition signals for moving from one activity to another. Next they look at strategies to increase behaviours of which they wish to see more, through praise, encouragement and incentives, and to ignore inappropriate behaviours that are not disruptive to other children. Strategies to help parents to support their child's education are explored. The latter part of the programme focuses on strategies for managing non-compliance, including time-out and other consequences, promoting children's emotional literacy and problem solving skills.

The programme is collaborative and the training methods are the same as those used with parent and child programmes and include: 1) discussion about assignments and shared problem solving about situations from teachers own classrooms; 2) watching videotaped examples of classroom situations to promote discussion and help to identify effective management principles; 3) role-play and practice of key strategies; 4) classroom assignments, which include building a connection with a challenging child, praising a difficult pupil, building a relationship with a parent, developing a behaviour plan for a particular child, setting up classroom rules, and ways to remind children of them, and developing a discipline hierarchy.

*Evidence for the effectiveness of the programme.*

The TCM programme was first evaluated by Webster-Stratton in a randomised trial with 133 children diagnosed with conduct problems. The study compared child and parent training with and without teacher training. Post-intervention observations of teacher behaviour consistently favoured conditions in which teachers had received training. Trained teachers used more praise, were more nurturing and less inconsistent and reported more confidence in teaching than control teachers. In classrooms with trained teachers children were significantly less aggressive with peers and more cooperative with teachers. Trained teachers also reported that children had increased academic competence compared to children in control classrooms (Webster-Stratton & Reid, 1999).

Almost identical findings emerged in a randomised prevention trial with 272 head start children in which teachers and parents receiving the training programmes were compared with those receiving regular Head Start services (Webster-Stratton et al, 2001a). In classrooms where teachers received training, children were observed to have higher school readiness scores (engagement and on-task behaviour), increased pro-social behaviours and significantly reduced peer aggression. Teacher reports of parent involvement in school, as well as children's social competence, were also significantly higher for trained than for untrained teachers.

*Delivering the teacher programme in North West Wales.*

The *Incredible Years* programmes have been delivered in North Wales since 1998 and the University based *Incredible Years Wales Centre* was established in 2003. First the parent programme was delivered and this has since been researched with parents of high risk three

and four year olds in Sure Start services across North and Mid Wales. The results, show significant improvements in both parenting practices and child behaviour, (Hutchings et al., submitted). As a result of the very positive outcomes achieved, the Welsh Assembly Government have funded the training of parent group leaders across Wales, from April 2006, as part of their Parenting Action Plan for Wales (Welsh Assembly Government [WAG], 2005).

In 2001, Gwynedd County Council Education Department decided to pilot the introduction of the Classroom Dinosaur School DS (Hutchings, Lane, Ellis-Owen & Gwyn, 2004). The strategy involved first establishing effective classroom management skills through TCM training. Since 2002/3, the TCM programme has been delivered as an ongoing programme to local teachers.

This paper reports on the response of the first teachers to receive the TCM training, obtained from a survey on the acceptability and teacher perceived usefulness of the programme. It also describes results from a subsequent observational study comparing teacher and child behaviour in classes with trained and untrained teachers. The five day TCM programme was delivered by the first and sixth authors. The sixth author is an experienced head teacher who has been seconded to support the development of the TCM and Classroom Dino programmes.

## **Study one**

### **Method**

#### *Participants*

Twenty two teachers were nominated for the training by their employer for a variety of reasons, including teacher interest and employer identified need. The sample was 95% female with an age range of 24 – 56 years and a mean age of 37 years. The years of teaching experience of the sample ranged from 2 – 32 years with a mean of 17 years. The sample consisted of 14 key stage one teachers, 2 key stage two teachers, 3 teaching head teachers and 3 special needs teachers. Supply cover was provided and teachers made a big commitment to the course with overall attendance of 94%. Fourteen participants (67%) attended all training sessions, six (29%) missed one session and one (5%) missed two sessions. By the time of the survey two teachers had already attended the missed day by joining a subsequent course, others who had missed a day were waiting to attend the day that they missed when the course was next run.

#### *Measures*

The Teacher Satisfaction Questionnaire TSQ (Webster-Stratton & Reid, 2001c) covers four areas i) usefulness of the programme, ii) confidence in delivering it iii) difficulty/ease of putting the programme into practice and iv) use of strategies for improving home school links. A final question asks teachers to describe the two most useful things they had taken from the programme. After the programme all teachers consented to participate in a post-course qualitative interview 21 (91%) of participants were interviewed. The interview was organised into five areas, background information, the course itself, application in the classroom, practical implications and comments and recommendations.

### *Intervention programme*

The first two courses were run during 2002/3 and attended by eleven and twelve teachers respectively. Each course was run as five full day programmes, delivered monthly. The month long intervals allowed participants time to complete the classroom assignments. Verbal and written feedback was provided on the classroom assignments. The courses were run according to the protocol and delivered bilingually in Welsh and English.

### *Procedure*

Twenty teachers (87%) were present at the final session and completed a bilingual Welsh/English version of the TSQ (and consented to be contacted to participate in the qualitative interview).

### *Results*

#### *Analysis strategy*

All results are reported on a scale of 1 – 5 and although the specific scales used different wording such as satisfied or helpful 1 and 2 represent a greater or lesser negative response, 3 represents a neutral score (e.g. neither helpful or unhelpful) and four or five are lesser or greater positive response on all scales. A total satisfaction score was obtained by adding responses to all sections.

The total satisfaction score yielded a mean score of 4.2 indicating a high level of satisfaction with the programme overall. The mean scores for the four components of the TSQ were as follows 1) Usefulness of the programme 4.5. 2) Confidence in delivering programme 4.6.

3) Difficulty/ease of putting the programme into practice 4.8. 4) Use of strategies for improving home school links 3.5. These results demonstrate high levels of satisfaction among teachers who attended the training. The mean response to the 17 questions on the usefulness of the specific components received the highest rating indicating that teachers found all of the topics useful and most very useful. This was closely followed by teacher ratings of ease of use of the material and ideas showing that teachers overall found little difficulty in implementing the strategies and their overall confidence in using the principles taught. Strategies for improving home-school links and working with parents yielded the lowest rating. This may be because some of the suggested strategies, home visits, having lunch time meetings with parents, daily talks with parents or attending a sporting or other out of school activity that the child was involved in were not seen as feasible by some teachers.

#### *Qualitative analysis*

Qualitative analysis was conducted using thematic content analysis within in each of the five categories of the interview and are presented below per category. All teachers had implemented the training in their classroom. Responses were coded into seven categories by two independent coders, and inter-rater agreement was high ( $\kappa = 0.82$ ).

#### *Benefit from the course.*

When asked how they had benefited teachers gave, on average, two responses. The most common themes to emerge were an increased range of effective strategies and greater use of existing positive strategies (both cited by 11 or 51% of teachers). Nine teachers (43%) referred to a change in their philosophy and seven (33%) referred to changes in themselves in terms of feeling calmer and/or less stressed.

*“It was refreshing to come back to the staff-room after the training, not having to say that the best thing about the course was the lunch! It definitely has been a worthwhile experience for me, and definitely my pupils, and I am eager for other members of my staff to receive this training.”*

*‘I liked the fact that useful strategies were highlighted. The flexibility of the course – in terms of being able to select the strategies that would work better for me was great.’*

### *Most useful components*

When asked what was the most useful component of the course participants gave a mean of two responses. Sharing experiences and strategies with others was the most commonly reported benefit, suggesting that the collaborative philosophy of shared problem solving had been effective (81%). This was followed by extending the range of strategies available to them (62%) and the philosophy with its emphasis on positive management strategies (48%).

*“It was good to share experiences with other teacher in similar situations – I no longer felt I was alone. I just wish I’d had this course as part of my teacher training!”*

### *Making use of the training in the classroom*

All teachers reported making use of the training in their classroom and gave an average of five responses to how they did this.

Becoming more effective with the use of praise was the most common response followed by use of the ‘give me five’ prompt to sit quietly and reward charts for specific behaviours.

Teaching children to raise a quiet hand and use of a time out chair were reported as useful.

*“I do not raise my voice half as much as I used to, and give a lot more praise. Rather, I think before reacting, and it is good to focus on good behaviour in the classroom – something that I generally tended to ignore in the past. This has had such a positive effect on the children’s behaviour to each other too.”*

### *Barriers to implementation*

Fifteen teachers (71%) reported no barriers to implementation, two (10%) reported that it took time but that this was only initially, two teachers (10%) reported that the inconsistency of other staff was a barrier.

*“I am completely transformed! My views on dealing with misbehaviour have changed radically – and for the better – as reflected in my pupils. I have been going on about the course to my staff – and it’s just a shame that some teachers fail to realise the applicability of adopting a new perspective. I think the only way that they would benefit would be if they all had the opportunity of attending the course.”*

### *How have pupils benefited?*

All respondents said that pupils have benefited from their training. Teachers gave an average of three responses to this question, the most common (67%) being that strategies had helped children to pay more attention, followed by becoming more considerate of others (52%) and boosting children’s confidence (48%). Other responses included seeing children become more respectful (38%), and children enjoying responsibility (29%). These latter are a further reflection of how the collaborative course style filters through to the classroom with teachers finding ways to give greater responsibility to children.

“The whole ethos of the course was like a breath of fresh-air, that has changed my framework of thinking, and responding to, behaviour in the classroom. My pupils are much more considerate of their peers as a result! I wish all school staff received the training so we could establish continuity at lunchtime, and in the playground.”

### *Managing disruptive behaviour*

Irrespective of whether their class included children with behaviour difficulties, twenty participants (95%) reported a general benefit to their class as a whole and of the 12 teachers who reported having children with specific behaviour difficulties, eleven (91%) reported that the training had helped them to become better equipped to deal with and to teach these challenging children.

*“I feel I can engage the children’s attention better. They seem to have more respect for me and other pupils. They love being involved in making up rules, and finding strategies to solve problems. The best course I ever attended!”*

### *Participant recommendations*

Nineteen interviewees (91%) recommended the widespread implementation of the training programme across primary schools as beneficial for both teachers and pupils and nine (43%) suggested incorporating the Incredible Years classroom management training into the B.Ed system, feeling that this training was needed before beginning a career in the classroom.

Nineteen (91%) would recommend the course to a colleague.

*“I wish I’d had the training years ago!”*

There was also a strong feeling among the teachers that other, non-teaching staff, in the school also needed training in behaviour management with 33% mentioning teaching assistants and others mentioning head teachers, playground and canteen staff. These responses demonstrate both how beneficial teachers found the course and emphasise the benefits of learning from other course participants, a central part of the collaborative philosophy on which the programme is based, recognising and building on teacher expertise.

*“It was good to share experiences with other teachers in similar situations – I no longer felt that I was alone. I just wish that this course had been part of my teacher training.*

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## **Study two: observational study.**

### *Participants*

Twenty one teachers from three primary schools in Gwynedd from each of which some teachers had received TCM training agreed to be observed in their classrooms. Ten teachers were either fully trained in the Incredible Years (IY) TCM programme, or were nearing completion while 11 had received no training in the TCM. Initial contact and recruitment of schools was undertaken by a representative of Gwynedd Education Authority.

### *Measures.*

Observations were coded using frequency counts of teacher and pupil behaviours during a 30 minute classroom observation. A classroom observation scale (the Teacher-Pupil Observation Tool; T-POT; Martin, 2005) was developed, using items from the Dyadic Parent-child Interaction Coding System (DPICS; Robinson & Eyberg, 1981; Webster-Stratton, 1989), a parent-child observational coding scheme, and the Multiple Option Observation System (MOOSES; Tapp, Wehby, & Ellis, 2000), a classroom coding scheme, both frequently used measures by Webster-Stratton in her studies (e.g. Webster-Stratton, 1998; Webster-Stratton & Hammond, 1997; Webster-Stratton, Reid, & Hammond, 2001a). The three coders were all fully trained and reliable in use of the DPICS, having previously participated in a larger parent study. The scale covered 12 teacher behaviours, such as praise and commands; 17 target child behaviours, such as verbal aggression and positive interaction and eight peer/classroom behaviours such as destructive behaviour and off task behaviour. The 29 items were reduced to the following nine global teacher and child categories. Inter-rater

reliability of 70% across the three trained coders was achieved rapidly because of their prior familiarity with both the principles and some of the categories.

Teacher categories

Teacher Negative

Teacher Praise

Teacher Indirect Command

Teacher Direct Command

No Opportunity given for Compliance

Child categories

Child Negative Behaviour

Child Positive Behaviour

Child Non-Compliance

Child Compliance.

### *Procedure*

Teacher and pupil behaviour was coded in 30-minute sessions. Observations were undertaken in twenty-one classrooms in three local primary schools. Observers were blind as to which teachers had completed the five day TCM training and which had not. All three schools had both TCM and non-TCM teachers.

### *Results*

#### *Analysis strategy*

Due to the variability between frequencies of behaviour among the ten categories and the small sample size, non-parametric analyses were performed.

#### *Differences between TCM and non-TCM teachers.*

A Mann-Whitney U test was performed to look for statistical differences between the TCM and non-TCM teachers and their children. In addition effect sizes were calculated using

pooled effect size calculations. Table 1 shows the results for each category. Trained teachers performed better than untrained teachers on every measure and two teacher and two child categories, yielded statistically significant differences between the trained and non-trained groups.

Trained teachers made significantly greater use of direct commands ie commands that tell the child exactly what they should do. TCM trained teachers also allowed significantly longer for children to respond to commands before issuing another command. There was significantly less non-compliant behaviour from the pupils of trained teachers, again in the expected direction and child positive behaviours (compliance, positive verbalisations and gestures) were significantly greater among children in the classes of trained teachers. In addition teacher praise showed a trend in the expected direction, but narrowly failed to reach significance with TCM trained teachers demonstrating more praise.

When the effect sizes were calculated, using pooled effect size calculations, they demonstrated that, despite the lack of significant differences between TCM and non TCM teachers on teacher negatives, positives, praise, and compliance, substantial differences exist between the two groups on these measures which may have failed to reach significance due to low power within the study.

*[insert table 1 around here]*

## **Discussion**

The paper describes the IY TCM programme and evaluates its first use in the UK, reporting both teacher response and direct observation of teacher and child behaviour in the classroom.

The course was run initially because it has an excellent evidence base and fitted with the local strategy of developing the IY parent programme in the area. Based on the enthusiastic initial response from teachers the IY TCM programme was then adopted by Gwynedd Education Service as a strategy for all of its 106 primary schools.

The collaborative teaching methods, shared problem solving, behavioural rehearsal and classroom assignments were all highly rated by teachers and there was an extremely positive response from the teachers who had undertaken the programme. Classroom observational data backed up the survey findings with statistically significant differences between both teachers and children in TCM as opposed to untrained classes. Together these data demonstrate that, despite originating from Seattle, USA, the programme works well in our largely rural bilingual area, probably because of its collaborative philosophy, building on and sharing teachers experience and skills.

The course is now also delivered as an M.Ed. module, through the Faculty of Education at the University of Wales, Bangor, enabling teachers to gain a Masters level credit for completing the classroom assignments. This has made the course more widely available and M.Ed. students currently pursuing the programme include teachers from Ireland, Wales and England. The provision of courses, through the Incredible Years Wales Centre, to train education specialists to deliver the programme has further facilitated its spread.

The results of the survey and interviews demonstrate that the Incredible Years TCM Programme is both popular, respected and enjoyed by teachers who have undergone training. The results of the classroom observation study, undertaken by observers blind as to whether the teacher had received the training, demonstrate the programme to be effective at enhancing teacher classroom behaviour and increasing child compliance.

This study has limitations of which two are worth of comment. Firstly the very small sample sizes for study two means that the study is likely to be underpowered. However, by verifying the between group differences using effect sizes, it has been possible to demonstrate that TCM probably leads to more change in teacher and pupil behaviour than has been demonstrated in this study. Secondly the fact that TCM and non-TCM teachers were working together in the same schools may have lead to possible contamination, with untrained teachers possibly having picked up ideas and strategies from TCM trained colleagues. While it has not been possible to control for this within our analysis, in reality such contamination would have made it more difficult to establish differences between the groups, making this study an even more conservative test of the power of TCM. A larger prospective randomised control trial of TCM is currently underway in North Wales using only schools that had to date not had any teachers trained in the programme. This will, on completion, provide further data on the potential effectiveness of TCM.

*Implications of the study for educational training and practice.*

Teachers report a lack of training in classroom management and, in particular, the skills needed to manage challenging and disregulated children who are arriving at school in increasing numbers. All teachers within Gwynedd County Council education authority are

currently being trained in TCM (of the 106 primary schools teachers in 46 schools have so far received training) in order to enhance their day to day classroom management skills. The programme has also been incorporated into the post-qualification M.Ed programme at the University of Wales, Bangor. On the basis of the findings of this study, the Incredible Years TCM programme would appear to be an appropriate tool to enhance teacher training at an initial and post qualification level. The enlightened strategy developed by Gwynedd education authority appears to be a sensible and potentially cost effective way of supporting teachers within the classroom.

There is a growing focus on children's social and emotional competence and recognition of the ever increasing numbers of children arriving at school without the necessary pre-requisite skills to enable them to engage in an academic curriculum. The Government is increasingly looking for effective programmes to combat these problems that, if unresolved, produce significant long-term difficulties. This programme has the potential to make a difference to children's ability to engage in positive relationships with their schools, itself a known protective factor. The provision of training for education specialists in the delivery of the programme looks set to increase over the coming years as recognition of the potential contribution of this programme grows.

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Table 1.

Composite Variable	Mean TCM (SD)	Mean non-TCM (SD)	z Value (M-W u)	p value	d
Teacher Negatives	5.80 (3.08)	9.82 (7.29)	-1.10 (39.50)	.272 P > .05	0.77
Teacher Positives	150.70 (43.75)	118.82 (48.63)	-1.55 (33.00)	.121 P > .05	0.69
Teacher Praise	52.40 (27.62)	31.00 (22.18)	-1.83 (95.00)	.067 P > .05	0.86
Indirect Commands	58.40 (26.15)	64.36 (32.35)	-0.28 (106.00)	.778 P > .05	0.20
Direct Commands	10.80 (5.98)	5.91 (4.37)	-2.00 (27.00)	.048 P < .05	0.94
No Opportunity	35.50 (20.43)	50.27 (16.98)	-1.97 (27.00)	.049 P < .05	0.79
Compliance	37.60 (17.15)	28.09 (12.97)	-1.31 (36.50)	.192 P > .05	0.63
Non-Compliance	0.50 (0.85)	1.45 (0.82)	-2.38 (23.00)	.018 P < .02	1.13
Child Positives	80.70 (32.20)	54.73 (19.93)	-2.54 (19.00)	.011 P < .02	0.99
Child Negatives	7.10 (12.28)	5.64 (4.88)	-0.83 (43.50)	.408 P > .05	0.17

**Figure 1.**

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Figure 1: Teaching pyramid

Table 1: Observed differences between TCM and non-TCM teachers.

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