USING SPECIFIC FEEDBACK TO FOSTER A GROWTH MINDSET AMONG PRE-SCHOOL PUPILS

Education and Social Care

Introduction

There is a widely held view that praising children boosts self-esteem, confidence, motivation and engagement in learning. However, recent studies (Kamins and Dweck, 1998; Mueller and Dweck, 1998) have revealed that some types of praise are not only ineffective in boosting self-esteem but can also have a detrimental effect on motivation and learning. Furthermore these effects can be seen across the board - from children as young as 3 ½ to university students.

Instead, Dweck (1999) suggests the key ingredients of effective feedback are **what** is praised and **how** praise is given.

Children (including young children) who are given feedback based on their abilities, particularly when linked to personal traits such as 'clever [girl]' and 'good [boy]', are more likely to develop what Dweck calls a 'fixed mindset'. In a fixed mindset, individuals believe their intelligence and abilities are fixed entities (i.e. you are either good at something or you're not and there's not much you can do about it). With a fixed mindset, the main goal becomes maintaining the 'clever' label and effort is viewed as pointless and there is less chance of engagement in activities that challenge perceived intelligence.   Feedback based on ability alone fosters fear of failure.

By contrast, those given feedback based on effort, process and strategies are more likely to develop a growth mindset where they believe their abilities can develop and grow with hard work and perseverance. People with a growth mindset are not afraid to try new activities or tasks and they view challenges, setbacks and mistakes as opportunities to develop and learn. Furthermore feedback based on effort and process fosters enjoyment of challenge and a growth mindset.

With this in mind, the key aim for the study was to support practitioners in fostering a growth mindset environment among pupils within their pre-school setting.

The Difference between fixed and growth mindset

	Fixed Mindset **Intelligence is Static** Leads to a desire to look smart and therefore a tendency to…	**Growth Mindset** **Intelligence can be Developed** Leads to a desire to learn and therefore a tendency to…
Challenges	Avoid challenge	Embrace challenge
Obstacles	Get defensive or give up easily	Persist in the face of setbacks
Effort	See effort as fruitless or worse	See effort as the path to mastery
Criticism	Ignore useful negative feedback	Learn from criticism
Success of others	Feel threatened by the success of others	Find lessons and inspiration in the success of others
	As a Result… They may plateau early and achieve less than their full potential	**As a Result…** They reach ever-higher levels of achievement

Table 1: The Difference Between Fixed and Growth Mindset

Table based on a diagram by Nigel Holmes in *Mindset,* (2006) by Carol Dweck

Method

Video was used as both an observational and measurement tool to record the incidence of specific, effort, process or strategy based feedback used by a practitioner in each of two pre-school settings.

Five pre-schools volunteered for the project and two were picked at random to take part. The following tasks, noted in the table below, were undertaken:

Task	Date	Content
1. Video practitioner	Pre-S A – 23.04.14 Pre-S B – 25.04.14	• Practitioner videoed for 27 minutes of usual interaction with children. • Video viewed by researcher and incidence of specific feedback recorded for baseline measurement.
2. View video with practitioner and provide input	Pre-S A – 07.05.14 Pre-S B – 30.04.14	• Viewed video with practitioner; discussed incidents of recorded specific feedback. • Provided input on growth mindset and effective feedback including research, theory, practice. • Provided book for reflective log and discussed use of.
3. Re-video practitioner	Pre-S A – 21.05.14 Pre-S B - 28.05.14	• Practitioner videoed for 27 minutes of usual interaction with children. • Video viewed by researcher and incidence of specific feedback recorded
4. View video with practitioner; and discuss next steps	Pre-S A – 30.05.14 Pre-S B – 06.06.14	• Viewed video and picked out incidents of specific feedback for discussion with practitioner. • Discussion about how felt things were going and next steps/goals
5. Re-video practitioner	Pre-S A – 23.06.14 Pre-S B – 20.06.14	• Practitioner videoed for 17 and 11 minutes respectively; both videos scored to 11 minutes. • Researcher viewed and scored for specific feedback. Feedback to pre-school B as a group; discussion with manager and practitioner of pre-school A.

The initial, pre-input videos revealed a significant amount of non-specific praise, support and encouragement in both settings. A baseline measurement of specific feedback taken during 27 minutes of video was recorded as 16 instances in pre-school A and 9 in pre-school B.

The second video, recorded after discussion and input, revealed a significant rise in instances of specific feedback in both settings. Pre-school A's figures had risen to 37 and pre-school B's to 32; both were recorded during 27 minutes of video.

The timing of the third and final video proved to be problematic. This was due to take place at the end of the summer term, which is very busy for pre-schools as they prepare for some children heading off to primary school and others moving on to their pre-school year. Additionally, Pre-school A was short staffed on the day of recording and the practitioner involved in the project had additional duties to perform. Consequently time was limited and 17 minutes of video was recorded in pre-school A and 11 minutes in pre-school B. To maintain equality, both videos were scored to 11 minutes. Instances of specific feedback were higher than the baseline measurement at 23 and 15 respectively.

Instances of specific feedback per minute were calculated for direct comparison across the three videos. There were significant increases between videos 1 and 2 in both settings. Pre-school A recorded a rise from 0.6 in video 1 to 1.4 in video 2 while Pre-school B's levels increased from 0.3 to 1.2. Further increases were recorded between videos 2 and 3 with Pre-School A increasing the rate of specific feedback per minute to 2.1 and Pre-school B to 1.4. The table below details the percentage increase.

Percentage Increase Pre-School A		Percentage Increase Pre-School B	
Video 1 - 2	+ 133%	Video 1 - 2	+ 300%
Video 2 - 3	+ 50%	Video 2 - 3	+ 17%
Video 1 - 3	+ 250%	Video 1 - 3	+367%

Table 4: Percentage Increases between Videos

Chart legend:
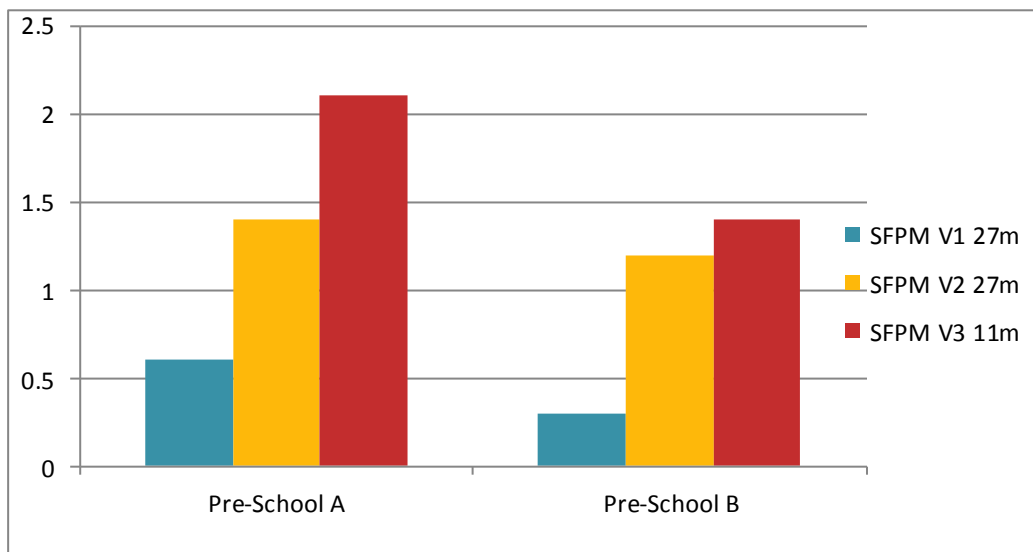- SFPM V1 27m
- SFPM V2 27m
- SFPM V3 11m

Chart 1: Instances of Specific Feedback per Minute (SFPM) Each Video (V)

As well as an increase in instances of specific feedback, three different types of feedback were noted:

1) What and Why: Feedback Based on Process, Strategy and Effort

Feedback that tells the recipient something about **what** they've done well or **why** something is good. This is concrete, evidence based feedback that values the amount of time and effort spent on an activity and the processes / strategies deployed. It also encourages persistence, motivation and the transfer of skills to future learning. There does not necessarily have to be an end product.

Examples include:

"*Can you see how well you've cut round that piece of paper and you held it with one hand, well done"* (Vid, 1)

"*That's a great square, it's got straight lines all joined up"* (Vid, 1)

"*I know it's a really sunny day because there are 2 suns and blue sky with no clouds*" (Vid, 2)

"*You have made a pattern of giraffe, camel, giraffe, camel – well done"* (Vid, 2)

"Well done – you have managed to get them to stick together all by yourself" (Vid, 2)

"You really had to think about that – well done" (Vid, 2)

"You've remembered how to do it without me showing you how to do it" (Vid, 3)

"That was clever, sometimes you have to look very carefully for the pictures" (Vid, 3)

"You found it quite hard in the beginning but because you've been practicing you find it easier" (Vid, 3)

"You did do it; you have put your rectangle, your circle and your triangle and flames at the bottom, all by yourself" (Vid, 3)

2) Instructional Feedback

While this is not direct feedback in terms of offering specific information about what or why something has been done well, instructional feedback offers encouragement to try or think about something, scaffolds to the next stage or asks questions to prompt thinking. This can be powerful in terms of encouraging concentration, persistence, enquiry skills and thinking about process and builds upon existing practice in both settings. Examples include:

"To get a square keep your scissors right close to the edge" (Vid, 1)

"Have a think about what you want to draw. What shape was the van a circle, a square, a triangle?" (Vid, 1)

"Does the elephant match our pattern?" (Vid, 2)

"Is it going to work? Why not do you think?" (Vid, 2)

"What comes next?" (Vid, 2)

"Have a look at the other two pieces, what do you think?" [Then], *"well done, you matched up the fence"* (Vid, 3)

"Where do you think that might go?" (Vid, 3)

"Do you want to do it again by yourself?" (Vid, 3)

Relationship Feedback

This type of feedback relates pleasure at something that has been done, valuing a contribution or saying why you specifically like something. The core message here is that effort and process are held in positive regard. This encourages persistence and internalises motivation; this type of feedback was evident in video 2 in both settings. Examples include:

"*I like the way you've made your plane, you've really used your imagination and worked so hard, I love it*"

"*My favourite bit is where the man sits*"

(Responding to a child's comment that "Everything is interesting") *"That's good; I'm pleased you think that, it'll all be exciting"*

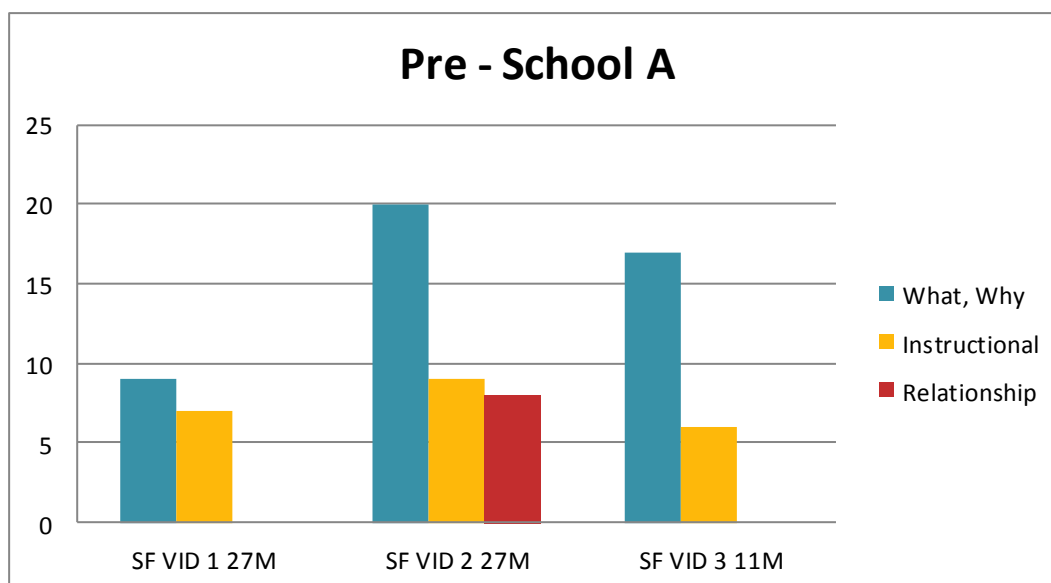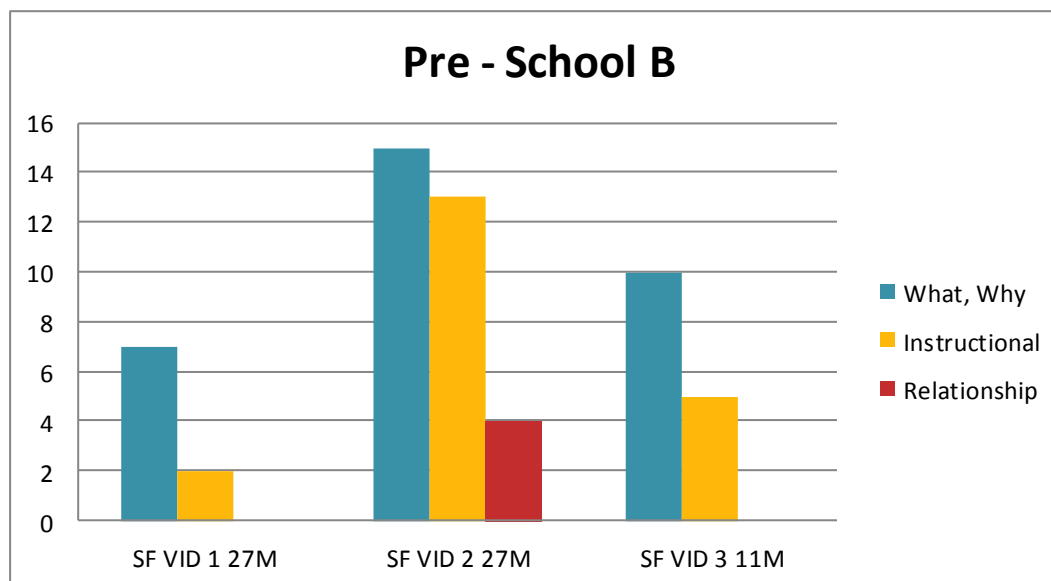**Chart 2: Types of Feedback, Pre-School A**

Chart 3: Types of Feedback, Pre-School B

Pre - School B

Qualitative Observations of Impact

One of the biggest observable differences after discussion and input was that *all* practitioners in both settings were also using specific feedback. Examples such as, *"Well remembered"* and *"You have worked hard on that"* could be heard from other members of staff during video observations. This suggests a universal willingness to take the concept of growth mindset on board. Comments from staff members suggested that they were all considering what they said to the children and one practitioners involved in the study said that she had changed the way she spoke with her own children.   Overall, practitioners felt that using specific feedback was making a difference to children's behaviour, particularly in terms of perseverance and feedback seeking, with one practitioner commenting, "*You see their faces light up when they get specific feedback".*

The practitioners in both settings noted that some children who tended to dart quickly between activities were engaging for far longer than usual. In one observed example of a drawing activity, the practitioner supported a child's communication by repeating what he had said, asking questions and involving other children in their conversation. At no point was he asked to talk about what he was drawing, the value was placed on his presence at the table and his contributions to the conversation.

On another observed occasion, a boy was scaffolded a little to construct a Stickle Brick model. The feedback he received was based on his imagination, focus and his effort. He smiled widely and went off to show another member of staff, who also gave him feedback on why she liked his model and how hard he must have worked. He then returned to the table and spent a considerable amount of time constructing another model and waiting for feedback; the practitioner reported that he does not usually stay long at this type of activity.

Suggested Modifications to Current Plan

- Increase the timescale of the study to allow for additional visits after input, more time in between input and 2nd recordings, ensure enough time for 3rd recordings and viewing with practitioner afterwards
- Provide structured times for feedback meetings with whole staff groups.
- Change the timing to allow for the above increased timescale, for example to run from September to December or January to April
- More structured guidelines / suggestions for the practitioners' reflective log

Ideas for Further Research

Dweck's (1999) research suggests that teaching children about growth mindset helps them to understand that they can 'grow' their brains. In collaboration with pre-school practitioners, next steps would be to develop an age appropriate way of teaching pre-school children about growth mindset.

Acknowledgements

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References

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