Exploring the Impact of the Emotional Literacy Support Assistant (ELSA) Intervention on Primary School Children Using Single-Case Design

Researchers: Jess Butcher, Ellen Cook, Jerricah Holder-Spriggs

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Background

The ELSA intervention is used widely and is highly valued by schools and the children who take part in it. This small scale research project, based in the south of England, investigated the effectiveness of an ELSA intervention in supporting children to develop their emotional literacy. An ELSA intervention is specific to each child's needs; therefore the measurement of its effectiveness was measured at the level of the individual child. This study focused on behaviours that were identified as of concern for each child and directly targeted by the intervention. Each child had individualised and specific targets set. These targets aimed to improve their social skills, including decreasing behaviours of concern and/or increasing adaptive functioning.

This research sought to answer the following question: Is the ELSA intervention effective in reducing the child's behaviours that are of concern and does it support the child to achieve their EL targets? It was hypothesised that over the course of the ELSA intervention, positive behaviours associated with the child's individualised EL targets would increase and behaviours that are of concern would reduce.

Method

Study design

A single-case design was employed to enable the researchers to conduct an in-depth analysis of the changes in the child's behaviour, as they progressed through their ELSA intervention. A unique feature of single-case design is its capacity to rigorously evaluate interventions with a small number of cases and allow casual inferences to be made between the changes in behaviour and the intervention (Kazdin, 2011).

Participants

The school identified four children who had not been involved in an ELSA intervention previously. One child left prior to the research starting. Three participants (two males in year three and one female in year five) were allocated a letter (A, B or C), in order to maintain confidentiality. Following the baseline period, one participant (female, C) was excluded due to the difficulty of getting a consistent baseline measure of behaviour. Participants acted as their own controls.

Measures

Participants' behaviour was measured on a continuous basis across two different contexts; an unstructured playground observation (10 minutes) and a structured lesson observation (30 minutes). A meeting was held with the ELSAs to obtain information regarding the children's behaviours that were of concern and their EL targets. This information was then used to identify the exact methods for observing behaviour and informed the coding manual.

Momentary time sampling and frequency recording was used. Momentary time sampling required the researcher to look up immediately at pre-designated points (i.e. every minute) and to note down whether the child was on-target or off-target at that precise moment. Frequency recording is a simple counting of how many times a behaviour occurs during a designated period of time. Participants' EL targets and method of observing associated behaviour are detailed in the table below.

Table 1: Participants' ELSA targets and method of observing.

Targets for child A	**Measurement**
To focus attention and start a task	Momentary time sampling of on/off task behaviour (classroom)
To take an active role within his peer group	Momentary time sampling of on/off target behaviour (playground)
To ask for help in class	Frequency recording of asking the teacher for help (classroom)

Targets for child B	**Measurement**
To reduce number of aggressive incidents	Frequency recordings (playground and classroom)
To resist distractions in class	Momentary time sampling of on/off task behaviour (classroom)

Targets for child C	**Measurement**
To use strategies when I feel that something is going to be difficult.	Momentary time sampling of on/off target behaviour (classroom)
To plan to overcome obstacles that might get in the way.	Momentary time sampling of on/off target behaviour (classroom)

Procedure

Phase A (baseline)	Phase B (intervention)
The researcher conducted observations on 4-5 separate occasions, across one week prior to the intervention starting.	The researcher conducted observations on a weekly basis whilst the intervention was in place (6 weeks).

Findings

Child A: To focus attention and start a task

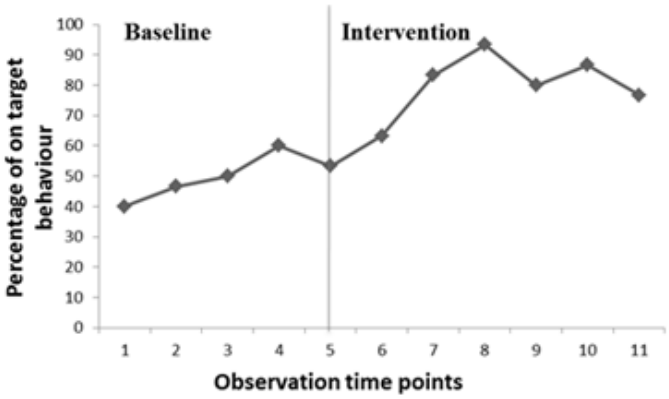

Figure 1: Percentage of classroom time spent on task during the baseline and intervention phase for child A.

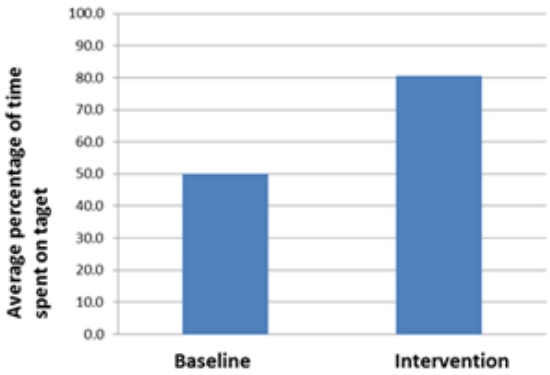

Figure 2: Average percentage of classroom time spent on task during the baseline and intervention phase for child A.

It is apparent from visual inspection of figure one and two, that the percentage of classroom time that child A spent on-task gradually increased as the ELSA intervention was implemented. Figure two highlights that the average percentage of classroom time spent on-task increased from 50%, when no intervention was in place, to 81% when the intervention was in place.

Child A: To take an active role within his peer group

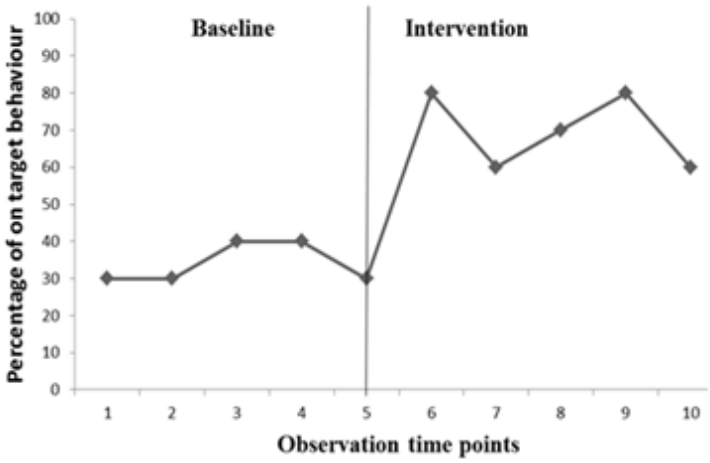

Figure 3: Percentage of time spent on target (i.e. as an active member of the peer group in the playground) during the baseline and intervention phase for child A.

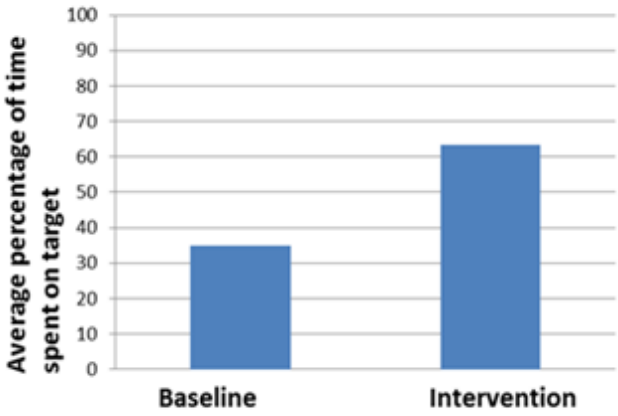

Figure 4: Average percentage of time spent as an active member of the peer group in the playground during the baseline and intervention phase for child A.

Visual inspection of figure three and four indicates that the percentage of playground time that child A spent as an active member of the peer group increased as the ELSA intervention was implemented. In particular, a dramatic difference in behaviour was observed after the first ELSA session (time point 6) in figure three and this remained relatively high for the rest of the intervention time points (6-11). Figure four highlights that the average percentage of playground time that child A spent as an active member of the peer group increased from 35%, when no intervention was in place, to 63% when the intervention was in place.

Child A: To ask for help in class

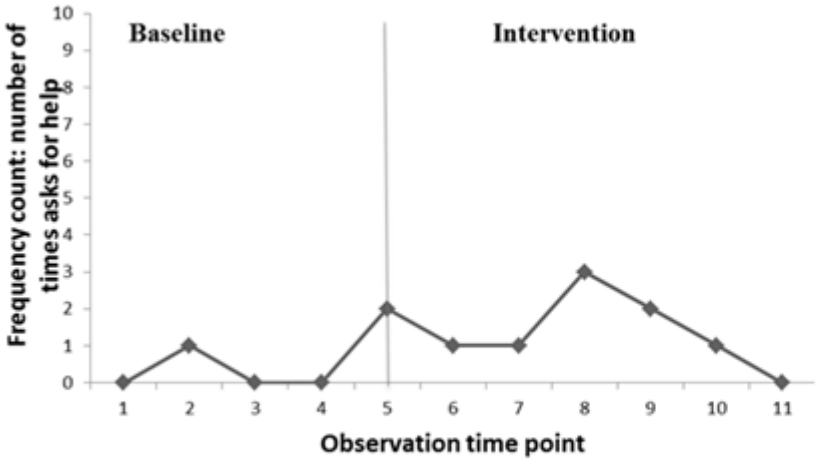

Figure 5: Number of times child A asks for help in class during the baseline and intervention phase.

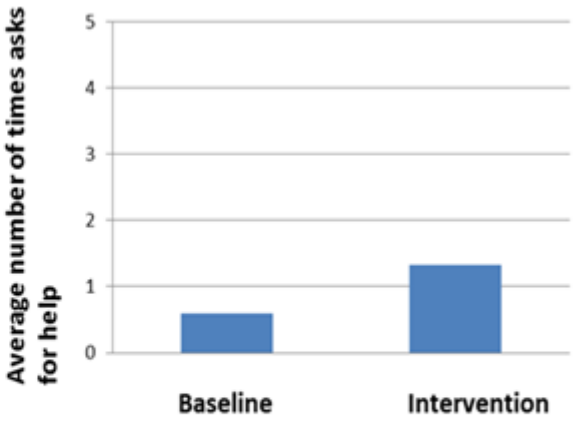

Figure 6: Average number of times child A asks for help in class during the baseline and intervention phase.

Visual inspection of figure five and six indicates that there was a slight increase in the number of times that child A asked for help during the intervention phase (*Average* = 1.3), when compared with the baseline phase (*Average* = .06). A peak in asking for help occurred during the intervention phase (time point 8), which coincided with an ELSA session on asking for help. Overall, however, this difference is not stable across the intervention phase and the average difference between the baseline and intervention phase is quite small and is unlikely to be significant.

Child B: To resist distractions in class

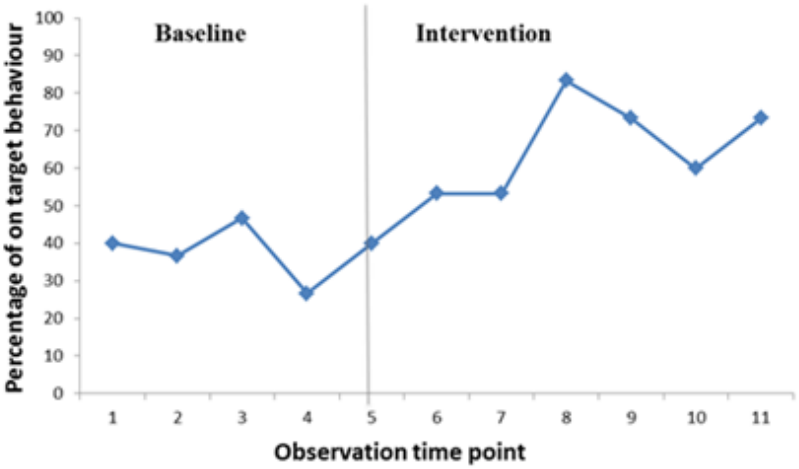

Figure 7: Percentage of time spent on task in class during the baseline and intervention phase for child B.

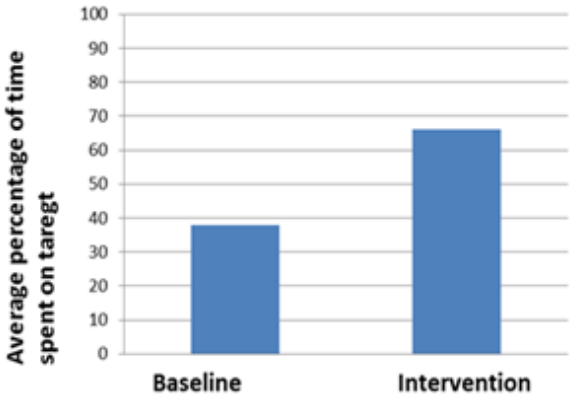

Figure 8: Average percentage of time spent on task in class during the baseline and intervention for child B.

Visual inspection of figure seven and eight indicates that the percentage of classroom time that child B spent on-task increased as the ELSA intervention was implemented. Figure eight highlights that the average percentage of classroom time spent on-task increased from 38%, when no intervention was in place, to 66% when the intervention was in place.

Child B: To reduce number of aggressive incidents

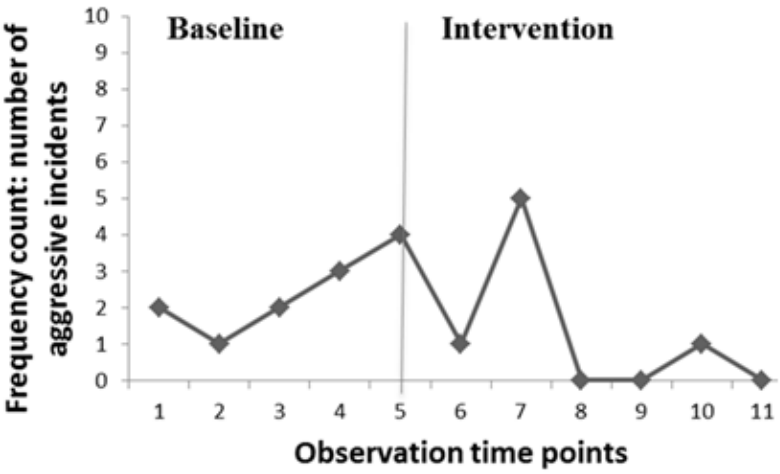

Figure 9: Number of aggressive incidents displayed by child B in class during the baseline and intervention phase.

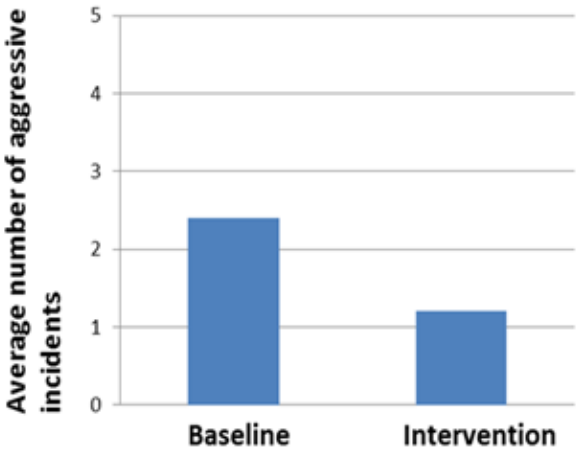

Figure 10: Average number of aggressive incidents in class during the baseline and intervention phase for child B.

Visual inspection of figure nine and ten indicates that there was a decrease in the number of aggressive incidents by child B in class during the intervention phase (*Average* = 2.4), when compared with the baseline (*Average* = 1.2). For the majority of the intervention time points (8-11), aggressive behaviour had decreased and remained low (*range* = 0-1).

Summary and Limitations:

The aim of the study was to explore if an ELSA intervention was effective in reducing the child's behaviours that were of concern and increasing adaptive functioning behaviours in school. The hypothesis predicted that the participants' positive behaviours would increase and that behaviours of concern would decrease. The general trend of the data does appear to support this. For both participants A and B, their on task behaviour in the classroom increased after the intervention was implemented, and remained higher than the on task behaviour during the baseline. Participant A showed an increase in the amount of help he requested in the classroom, and became a more active member of a group in the playground, both behaviours that were promoted during the intervention. The number of aggressive behaviours for participant B reduced by half over the course of the intervention, compared to the baseline phase.

The findings of this small scale research project should be taken in light of the following limitations:

- The baseline period was only one week; limiting the total number of data points.
- Participant A's target of asking for help was only measured as asking adults for help. In the classroom environment it was not possible to track when A asked peers for help as it was felt to be important to keep a distance to ensure the participant remained unaware that they were being observed. However, the ELSA support was working on improving asking adults and peers for help. It is difficult to evaluate change when not all the elements were being observed. It may have been that the number of times A asked for help did not increase by larger numbers because A was asking peers for help more.
- While the amount of aggressive behaviour decreased for participant B, the frequency represented relatively low numbers. Towards the end of the intervention the number had decreased to zero. It would have been useful to continue to track this for a longer period to asertain if the trend towards 'no aggression' continued.
- It was not possible to continue the observations for participant C. All of C's targets were for internalising behavours. The research team attempted to find a suitable overt behaviour that could be tracked, based on C's targets. However, during the baseline period it was apparent that the targets chosen did not fully meet the targets set out by the school, and those to be worked on during the intervention. Outcomes cannot be adequately evaluated, if what is being measured, is not what is being addressed through the intervention. As single-case design relies on the observation of overt behaviour, it may not be a suitable tool to assess change for pupils whose main area of need is internalising behaviours.
- The findings from the two participants were promising, however the results would need to be replicated with more participants to be able to draw firmer conclusions.
- The ELSA intervention is about permanent change, therefore it would be hoped that any changes would be maintained once the intervention had stopped. It would be beneficial in future research to do a follow up and explore if the behaviour change is maintained over time

The results of the study are promising, and suggest that the ELSA intervention had a positive impact upon behaviour. However, there is a need to address the study's limitations to be able to draw firmer conclusions. The ELSA intervention is child specific, so it was useful to make the evaluation of its impact child specific as well.

Please note: coding manual and observation sheets available on request.

Report References

Kazdin, A. E. (2011). *Single-case research designs: Methods for clinical and applied settings.* New York: Oxford University Press.