Recasts Used with Preschoolers Learning English as their Second Language

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This study examined linguistic recasts provided by 16 early childhood educators to preschool children learning English as a second language (EL2). Recasts are semantic and syntactic revisions of children's utterances. The educator-child interactions were filmed during book reading and play dough activities with small groups of four children, one of whom was EL2. The EL2 children were rated by their educators as having less well-developed expressive language skills than their unilingual peers. However, despite this finding, educators provided similar rates of recasts to both groups of children. Eight EL2 children with the lowest expressive language skills demonstrated fewer uptakes of their educator's recasts in comparison to EL2 children with higher expressive language skills. The implications of this study include increasing the rate of recasts and reducing their complexity to provide language-learning opportunities for all preschool children, especially for those learning English as a second language.

KEY WORDS: early childhood education; educator-child interaction; ESL; recast; language development.

INTRODUCTION

Many young children spend the majority of their daytime hours in childcare centres where they are cared for by early childhood educators. Given the multicultural context of most large urban centres, many of these children come from diverse linguistic and cultural backgrounds and enter childcare speaking little or no English. Because participation in quality childcare is associated with gains in language development of children who speak English as their first language (EL1) (for review, see Melhuish, 2001), it is also assumed that this environment has the potential to accelerate the language acquisition of children learning English as their second language (EL2).

The first purpose of this exploratory study was to compare the linguistic input provided by early childhood educators to EL1 and EL2 children in small playgroups. It examined the educators' use of linguistic feedback that is presumed to facilitate the acquisition of English language skills in typically developing children. The second purpose of this study was to examine children's responses to the educators' feedback to determine their language learning styles. The implications of this exploratory study include suggestions for further research into language facilitation in childcare environments and implications for improving the linguistic environment of the EL2 children to optimize their English language acquisition.

Many childcare centres enrol EL2 children who speak a language other than English in the home and

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lack the necessary English language skills to communicate adequately with their educators and peers. In these situations, educators are called upon to create a learning environment that facilitates English language acquisition while at the same time enriching the advanced language skills of EL1 children. For children learning English as their first language, evidence from existing research suggests that the educator's linguistic responsiveness to children's communicative attempts accelerates their language development (e.g., Melhuish, Mooney, Martin, & Lloyd, 1990; Rhyner, Lehr, & Pudlas, 1990). Thus, it has been posited that an educator's responsive language input to EL2 children may play an equally important role in helping them acquire English language competency quickly (Wilcox & Murphy, 2003).

Unfortunately, there is a paucity of research focused on educators' linguistic responsiveness to EL2 children and there is little evidence to support this assumption. Moreover, many adult–child interactions in childcare centres are characterized by inconsistent and reduced levels of linguistic responsiveness. According to Cross (1989), educators use highly complex language that is not well matched to the children's language level. Evidence from studies in which educators interact with groups composed of children with poorly developed language skills indicate that children with lower level skills receive significantly less responsive language input than children with higher-level skills (Rhyner et al., 1990). Similarly, Girolametto, Hoaken, van Lieshout, and Weitzman (2000) reported that educators were often directive with children who had language disorders, ultimately inhibiting their participation and language productivity in play interactions. Given these findings, it is important to investigate if EL2 children, who may also exhibit temporary delays in their English language competence, receive less responsive language input when compared to children whose first language is English.

This exploratory study examines one specific component of educators' responsive language input, that is, the use of recasts or expansions. Recasts are replies to children's utterances that provide syntactic, morphological, or semantic revisions of the children's utterances while maintaining a reference to their central meaning (Nelson, Welsh, Camarata, Butkovsky, & Camarata, 1995). Theoretically, the benefits of educators' use of responsive input, including recasts, are grounded in social interactionist theories of language acquisition. This theoretical model highlights the social context in which language learning occurs and suggests that mapping intentions onto language structures is not innate but is negotiated and conventionalized through social interactions with mature language users (Bohannon & Bonvillian, 2000).

Recasts are considered to be important for facilitating language acquisition for several reasons. First, recasts reduce the amount of processing required by presenting new structures when the child's attention has already been drawn to their referents (Nelson, 1995; Roberts, Bailey, & Nychka, 1991). Thus, when educators use recasts, fewer of the children's cognitive resources are engaged and more of their processing capacity is available for learning language. Second, through exposure to recasts, children are provided with opportunities to compare their own productions to similar utterances containing complex structures that are not yet acquired (e.g., Conti-Ramsden, Hutcheson, & Grove, 1995). Since children tend to avoid using two different forms to express the same idea (Saxton, 1997), they may discontinue using their immature language forms when faced with adults' correct production. Third, recasts acknowledge the content of the child's utterance, creating positive affect (Nicholas, Lighbown, & Spada, 2001), which enhances the child's motivation and attention to participate in the conversational exchange.

In first language acquisition, empirical evidence suggests that recasts contribute to increases in the children's production of syntactic and morphological forms and/or to increases in their mean length of utterance. For example, Baker and Nelson (1984) found recasting to contribute to greater increases in the typically developing children's production of passives, auxiliaries, and relative clauses that were absent before intervention than did modeling language targets in topic continuations. Camarata, Nelson, and Camarata (1994) compared the relative effectiveness of an imitative treatment versus a recasting treatment with children diagnosed with specific language impairment (SLI). The recasting treatment included naturalistic clinician–child interactions, in which recasts containing the targets were delivered following the child's productions, and resulted in a significantly greater number of spontaneous productions of the targets. Similarly, Nelson, Welsh, Camarata, Butkovsky, and Camarata (1996) reported that both 6-year-old children with specific language impairment and 3-year olds with normal language skills acquired new language structures much more often in the recast condition.

However, Nelson and colleagues (1995) suggest that learners may benefit from exposure to recasts

containing a language target only if they are in the stage of language development in which this target emerges. For example, Farrar (1992) investigated the relationship between recasts and the acquisition of seven different morphemes by 1- to 2-year-old children, who were in the appropriate stage of development when these morphemes are expected to be acquired. In this study, use of corrective recasts (i.e., recasts that modeled a form the child had used incorrectly) increased the use of the plural markers, while use of non-corrective recasts (recasts that modeled a form not used by the child) increased the use of past-tense markers. More research is needed to clarify which aspects of morphosyntax may be accelerated by adult's recasts.

Very little is known about how recasts are used in preschool classrooms with EL2 children. Previous studies investigating the use of recasts in childcare settings addressed the educators' interactions with EL1 children. For example, two studies (e.g., Girolametto & Weitzman, 2002; Roberts et al., 1991) used rating scales to evaluate the use of a recasting strategy with the EL1 children. Both of these studies indicated that recasts were used infrequently overall, as compared to other language facilitation strategies (e.g., following the child's lead, asking open-ended questions).

This exploratory study examined educators' use of recasts with EL2 and EL1 children in play interactions in early childhood classrooms. The first question of this study asked whether EL1 and EL2 children received different amounts of recasts from their educators. Because the EL1 children's language skills were well developed, it was hypothesized that EL1 children would elicit a greater number of recasts from their educators than the EL2 children. It was also hypothesized that EL1 children would respond to recasts more often than EL2 children.

METHOD

Participants

The adult participants were 16 early childhood educators working in licensed non-profit daycare centres in metropolitan Toronto. The educators were female, between 24 and 48 years of age, had a 2-year post-secondary diploma in Early Childhood Education, and at least 2 years of experience in childcare. Eight of the educators worked in toddler classrooms with children aged 18–30 months and eight worked in preschool classrooms with children aged 31–60 months.

Each educator selected four children who exhibited typical development and normally played together. Parents of the children completed case history forms from which information on children's general development was obtained (including information about birth, developmental history, languages spoken by the child, and amount of time spent in day care). The average age of the children was 32 months (range 20–49 months) and most of the children attended the child care centre on a full-time basis. The home languages spoken by the 16 EL2 children were varied and included Italian, Spanish, Tagalog, Punjabi, Bengali, Urdu, Russian, Hebrew, Chinese, Polish, several African languages, and several dialects of Arabic. The EL2 children had attended an English language child care centre for an average of 18 months and spoke their native language at home for an average of 37 hour per week.

Procedures

The educator and four children were videotaped during 15 minutes of a book-reading activity and 15 minutes of a play-dough activity. Three of the children spoke English as their first language and one child was learning English as a second language. For the book-reading activity, the educators and children sat in a circle on a carpet on the floor of the book centre. The educators used a set of three books, *The Mixed-Up Chameleon* (Carle, 1998), *Spot Bakes a Cake* (Hill, 1994), and *Barney and Baby Bop Go to the Grocery Store* (Cooner, 1997). The play-dough activity was carried out at a child-size table with five chairs. The investigator supplied a plastic container with three colours of play-dough, six wooden blocks, four spoons, four knives, four plates, four cars, and four Sesame Street finger puppets.

An informal questionnaire was administered to the educators after the videotaping to rate their impressions of the representativeness of the play interactions with regard to the amount of talk, rate of speech, amount of playtime, and comfort level as compared to an unobserved playtime. All educators judged the interactions to be typical on all three variables.

Transcription

Ten minutes of each activity were transcribed using the *Systematic Analysis of Language Transcripts* (SALT)(Miller & Chapman, 1992) to yield 20 minutes of transcription. The contexts were collapsed to provide a greater frequency of the variables of interest. The transcripts were prepared by a research assistant and verified for accuracy by a second

research assistant who read all the prepared transcripts, watched the videotapes, and noted any errors on the transcription of words, utterance boundaries, and addressees. Each disagreement (of word, utterance boundary, or addressee) was discussed and resolved with the first transcriber. Agreement reliability, conducted for the educators and children on 25% of the transcripts selected at random, was 96% for words, 97% for addressees, and 96% for utterance boundaries. Agreement reliability reflects the extent to which the two research assistants agreed with each other before any changes were made to the transcripts. The transcripts yielded measures of children's' language productivity, including mean length of utterance in morphemes (MLU) and the total number of utterances spoken.

Coding

Two coders were trained to code transcripts using the proposed coding system. The coding system for the educators' language input included the following three categories of recasts: (a) *corrective recasts* corrected the child's ill-formed utterance by adding or replacing elements (Farrar, 1992), and may be declarative or interrogative. For example, the child's utterance, "The car going fast", may be recast with correction in the adult's subsequent utterance "Yes, the car is going fast"; (b) n*on-corrective recasts* modeled structures and expanded the child's utterance with semantic information (Farrar, 1992) in the declarative form. For example, a non-corrective recast of a child's utterance, "A bear!" is "It's a brown bear". Non-corrective recasts were further subdivided into two categories: *simple* and *complex*, according to whether only one or more than one element has been added to the child's utterance (Nelson et al., 1995). An example of a non-corrective simple recast to a child's utterance, "A car" is "A red car" An example of a non-corrective complex recast to the child's utterance, "I have a cat" is "I also have a cat at home". The educators' utterances were coded as recasts only if they occurred within three conversational turns of the child's utterance.

Children's responses were assigned to one of three codes: (a) an *uptake* was a response that incorporates one or more elements of the recast that were absent in the child's utterance. For example, an adult's recast of "Bear" might be "You saw a brown bear". If the child responded to the recast with "A brown bear", the child's response was coded as an uptake; (b) *general replies* included replies to the

educators' recasts other than uptake, including repetitions of the child's original utterances, expressions of acknowledgement, and off-topic replies; and (c) *no response* was coded when the child did not respond to the recast with an uptake or a general reply. Responses to the recasts were coded if they occurred within one turn of an educator's recast.

Interrater reliability was conducted on 30% of the transcripts selected at random (i.e., 100 minutes). Reliability was calculated using the formula: number of agreements/(the number agreements + disagreements)×100 (Sackett, 1978). For the educators' recasts, reliability was 89% for all codes combined (n = 217). The overall interrater reliability for children's responses was 92% overall (n = 402).

RESULTS

The results of the study are presented in four sections: (a) comparisons of the language abilities of EL1 and EL2 children, (b) comparisons of educators' recasts to EL1 versus EL2 children, (c) comparisons of uptakes/responses of EL1 versus EL2 children, and (d) results of the *post-hoc* analysis of the EL2 children. The data were analysed using a series of Mann–Whitney U tests. Non-parametric statistics were used because of lack of homogeneity of variance for several key variables (e.g., SLAS scores, total number of children's utterances, and frequency of non-corrective simple recasts).

Comparison of Language Measures for the EL1 and EL2 Groups

First, a series of four Mann–Whitney U tests were conducted to compare the two groups of children for educators' ratings of expressive and receptive language development on the SLAS. An examination of the data on Table I indicates that the EL1 children received ratings of 3.0 or greater (i.e., normal for age) in both areas. In contrast, the ratings for EL2 children were within normal limits for receptive language but below expectations for expressive language. A significant difference was revealed for the expressive language rating ($U = 247.0$, $p = .032$, $d = 0.6$) with a medium effect size. This finding indicates that the educators perceived the EL2 children to have less well developed English language skills than the EL1 children. There was no significant difference for receptive language, $U = 320.5$, $p = 0.51$, ds = .3.

Next, measures of the children's language productivity (number of utterances, MLU) that were

Table I. Summary Data for Measures of Children's Language Development and Productivity

Variables	EL1 (n = 16)[a]	EL2 (n = 16)	U, p, and d Values
Receptive Language[b]			
M (SD)	3.3 (.7)	3.1 (.2)	320.50, p = .510, d = .3
Min–Max	2.0–5.0	3.0–3.7	
Expressive Language[b]			
M (SD)	3.0 (.8)	2.6 (.5)	247.00, p = .032*, d = .6
Min–Max	1.0–4.8	1.5–3.2	
Total # Utterances[c]			
M (SD)	50.4 (25.0)	55.3 (44.3)	124.0, p = .880, d = .1
Min–Max	15.7–102.7	3–158	
MLU (morphemes)[c]			
M (SD)	2.2 (.7)	2.1 (.9)	113.0, p = .572, d = .1
Min–Max	1.0–3.4	0.5–3.5	

[a]Each EL1 data point represents the average of a group of three EL1 children.
[b]Receptive language score was the mean of SLAS items 3, 8, 9. Expressive language score was the mean of SLAS items 1, 5, 14, 15, 19.
[c]The total # utterances was based on videotaped interaction; MLU = mean length of utterance in morphemes.
*Statistically significant difference at .05 alpha level, two-tailed

derived from the transcript of the play interaction were examined. An examination of these data in Table I indicates that there was considerable variability in these measures for both groups of children. Overall, the means for the total number of utterances and MLU were comparable. No significant differences were found between the two groups of children for the number of utterances or MLU, Us = 124.0 and 113.0, ps = .572 and 0.880, ds = .1, respectively. Thus, although the EL2 children were perceived by their educators as having less well-developed expressive language skills, the two groups of children did not differ on measures of expressive language productivity that were derived from the play interaction. Therefore, it appears that the educators rated an expressive language ability that was not captured in the relatively short sample of direct observation.

Comparisons of Educators' Recasts to EL1 versus EL2 Children

The next research question asked whether the number of recasts provided by educators differed for EL1 and EL2 groups. For these analyses the number of recasts (i.e., total, complex, simple, corrective) addressed to the three EL1 children in the group were averaged. These averages were then compared to the values obtained for the EL2 children. It was hypothesized that educators would provide more recasts to the EL1 children because they were perceived by the educators to have more advanced language skills than the EL2 children. Figure 1 illustrates the frequencies of recasts provided to the two groups of children.

Visual inspection of Figure 1 indicates that the educators addressed approximately 8.5 and 10 recasts to the EL1 and EL2 children, respectively. The figure also illustrates that the educators used complex recasts more often than simple recasts or corrective recasts. No significant group differences were revealed for any category of recasts, Us = 103.5–131.0, ps = .131–.792, ds = .1–.3.

Comparisons of Responses of EL1 versus EL2 Children

The second question asked by this study was whether the two groups of children differed in the number of responses to their educators' recasts. It was hypothesized that EL1 children would respond to recasts more often than EL2 children. For these analyses, the average values of the EL1 children were compared to those obtained for the EL2 children. Overall, Figure 2 illustrates that there were very few uptakes by either group of children. When they did respond to recasts, the children tended to continue the conversation with general replies that did not incorporate elements of their educators' recasts. No significant differences were revealed for any category of children's responses to educators' recasts, Us = 100.5–120.0, ps = .293–.726 ds = 0–.1.

Post-hoc Exploratory Analysis

Because the EL2 group was heterogeneous with respect to expressive language abilities, an exploratory *post-hoc* analysis was conducted to examine the
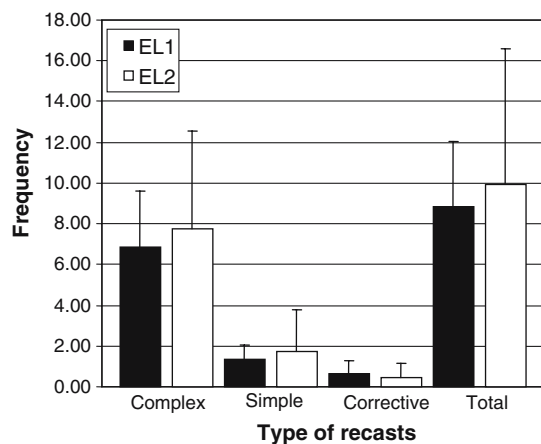
Fig. 1. Frequencies of EL1 and EL2 children's responses to recasts. Note: EL1 = children learning English as their first language; EL2 = children learning English as their second language.

relationship between the EL2 children's expressive language abilities and the educators' recasts. The EL2 children were divided into two equal subgroups based on the educators' SLAS median expressive language rating (i.e., 2.67). Thus, there were eight children in the low expressive subgroup and eight children in the high expressive subgroup. Each subgroup was comprised of four toddlers and four preschoolers. The data in Table II indicate that the high subgroup received a similar frequency of recasts as the low subgroup. The number of recasts provided to the two groups did not significantly differentiate the two groups ($U = 16.00$, $p = .93$, $d = 1.0$). Additionally, the data in Table II reveal that the low expressive
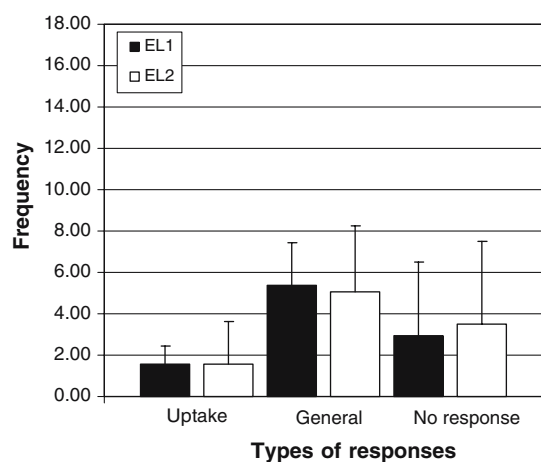
Fig. 2 Frequencies of EL1 and EL2 children's responses to recasts. Note: EL1 = children learning English as their first language; EL2 = children learning English as their second language.

subgroup used few uptakes while the high expressive subgroup used an average of 2.5. The *post-hoc* analysis revealed a significant difference for uptakes, ($U = 14.00$, $p = .048$, $d = 1.2$) with a very large effect size. Therefore, the EL2 children with lower expressive ability produced significantly fewer uptakes than the EL2 children whose expressive language abilities were rated as higher by their educators. An examination of the children's characteristics, including age, length of time in an English-speaking childcare centre, and exposure to L1 did not explain this difference.

DISCUSSION

The first objective of this pilot study was to determine if EL1 and EL2 children differed in the number of recasts that they received from their preschool educators during play interactions. Contrary to expectations, there were no significant differences between the two groups of children. Although the EL1 and EL2 children were at different expressive language levels (as rated by their educators), the number of recasts they received was equivalent. Overall, the data suggest that educators used few recasts in their responses to children's utterances, a finding that is consistent with previous reports by Girolametto and Weitzman (2002) and Roberts et al. (1991).

The second objective of this pilot study was to determine if EL1 and EL2 children differed in their rate of uptake of recasts. The results revealed that the two groups of children did not respond differentially to their educators' recasts and the overall rate of uptakes was quite low for both groups (i.e., an average of less than two uptakes in 20 minutes of interaction). An examination of the transcripts revealed that there were some EL2 children who rarely responded to recasts, whereas others did so more frequently. The *post-hoc* analyses revealed that EL2 children with higher SLAS scores for expressive language responded significantly more often to recasts than EL2 children with lower expressive skills. The low group responded to recasts less than once in 20 minutes ($M = .6$), whereas the high group used 2.5 uptakes in the same time period. This *post-hoc* finding suggests that some EL2 children do appear to take advantage of the language models used by their educators. Recasts have been found to increase the expressive language abilities of children with language disorders and typically developing children

Table II. *Post-hoc* Analyses of Recasts and Uptakes for the Two Subgroups of EL2 Children

Variables	Low Expressive(n = 8) M (SD)	High Expressive (n = 8) M (SD)	U, p and d values
# Total Recasts			
M (SD)	8.8 (5.5)	11.0 (8.0)	29.0, p = .753, d = .3
Min–Max	1.8–17.5	2.3–25.3	
# Uptakes			
M (SD)	.6 (.7)	2.5 (2.6)	14.00, p = .048*, d = 1.2
Min–Max	.0–2.0	.0–8.0	

Note: Low Expressive = children whose average SLAS Expressive score was below 2.67, High Expressive = children whose average SLAS Expressive score was above 2.67

(e.g., Nelson et al., 1996) and are considered to be a means of bootstrapping the language learning process. One possibility is that the EL2 children in the low language group are internalizing the educator's feedback and storing it for later use, thus reflecting a different language learning style from the children with high expressive abilities. A second possibility is that the EL2 children with less advanced English language skills were not at a language level that enabled them to profit from their educator's recasts. This suggests that children may need to acquire basic skills in English before they can take advantage of recasts. Both of these hypotheses need to be addressed by future studies. In addition, the difference noted between high and low level subgroups of EL2 children suggests that the heterogeneity in the language skills of the original EL2 group may have obscured a difference in the rate of uptakes between EL1 and EL2 children. This hypothesis also needs to be examined by future studies in which the language level of EL2 children is more strictly controlled.

This study was an attempt to explore the learning styles of EL1 and EL2 children in small group interactions in childcare centres. There are very few studies in the literature that have examined recasts to children in play groups larger than triads. In this study of educator-child interaction with a group of four children, the educators used more complex than simple recasts. This finding may have an important implication considering that complex recasts may be more beneficial for children who are in Brown's stages III–V in their language development (Nelson et al., 1995). The average MLU of children in this study is approximately 2.0 for both EL2 and EL1 groups, suggesting that children in the study are in Brown's Stage II and some were entering Stage III. An examination of the transcripts revealed that the mean length of utterance of the educators' language input ranged from 3.7 to 6.8 (comparable to Stages V and higher). Therefore, it is possible that the level of recasts provided to the children in the study was more complex than may be optimal for their language development because the structures used in complex recasts emerge in later stages of children's language development (Nelson et al., 1995). This hypothesis may also explain why there were so few uptakes of the educators' recasts.

This study contains several limitations. First, the EL2 children were recruited after they had been in daycare for an average of 18 months (i.e., between 7 and 36 months). Thus, it is possible that the conversational skills of children who had been in daycare the longest may have approached the conversational language levels of their EL1 peers. Other measures of their language abilities than those obtained from the sample of educator–child interaction and the SLAS were not utilized because standardized tests are inappropriate for EL2 children. Future research needs to address language measurement issues in order to better identify the skill level of EL2 children. Second, the educators in this study elected to participate; thus, it may be hypothesized that there may be unmotivated educators who would be less responsive to children and provide fewer recasts. Moreover, the educators' experience was quite variable; therefore, it is possible that some children received more recasts because their educators were more engaged and responsive than others. Future studies should control for the amount of childcare experience educators have.

This study was a preliminary attempt to examine recasts provided to EL2 children in a childcare environment. EL2 children may need more language input than EL1 children because their linguistic interactions in daycare may be their primary opportunities for hearing language models from adult speakers of

English. Without this extra linguistic input, EL2 children's language may not develop optimally because EL2 children must first master social-communication skills (e.g., initiating, responding, requesting) before acquiring language (Wilcox & Murphy, 2003).

Future studies are needed to address the question of whether recasts facilitate language development in EL2 children and whether EL2 children who use more uptakes demonstrate greater language gains. Future research is also needed to delineate the level of English proficiency that the children need to possess to benefit from recasts in the group environment of a childcare classroom. The overall tendency of educators to produce recasts up to three times longer than the children's sentences may point to the need for more simplified language models that are just one step beyond the children's language levels.

Due to the exploratory nature of this study, the implications of this research for early childhood education are tentative. The findings suggest that educators may (a) optimize the environment for EL2 children by consciously providing an increased number of recasts and (b) reduce the length of recasts to provide shorter models of expressive language. Recasting is an informal strategy that occurs spontaneously during educator-child interactions. Thus, educators who wish to increase their use of this strategy must first attend to the form and content of children's utterances and then respond by repeating their words within more complete or expanded utterances. This entails adding a word, a correct grammatical structure, or semantically related idea. Although group interactions occur at a quick pace, this study illustrated that recasting is a strategy that is used by educators and is feasible within small group contexts. Given the literature supporting the efficacy of recasts for children with language disorders and for children exhibiting typical development, recasting is likely to positively influence the language development of all children in the childcare classroom.

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