

SCRIPT FADING FOR CHILDREN WITH AUTISM:
GENERALIZATION OF SOCIAL INITIATION SKILLS FROM SCHOOL TO HOME

by

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Abstract

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A critical component of teaching social skills to people with autism is the generalization of behavior change across a variety of untrained situations during which social skills are appropriate. The script-fading procedure is an effective technology for teaching social skills to people with autism, but few researchers have established cues in the natural environment as the discriminative stimuli for social initiations. The purpose of this study was to use a script-fading procedure to teach young children with autism to initiate to one another across various activities in the school setting, and to program for generalization across untrained stimuli in the school setting and in the untrained home setting with a sibling. The three participants, ages 7 to 10 years, demonstrated deficits in social initiations with their peers. During the baseline condition, the participants did emit initiations to one another, although this behavior was variable and did not endure over time. With the introduction of the script-fading procedure, however, social initiations increased systematically for all participants. Moreover, the data demonstrated that the effects of the script-fading procedure generalized across untrained stimuli, responses, and to an untrained setting with an untrained conversation partner. Overall, this study demonstrated the effectiveness of the script-fading procedure in teaching children with autism to initiate to their peers. This study has expanded upon previous research by demonstrating generalization from school with peers to the home setting with siblings, and by providing social validity data

obtained through outside observers that support the effectiveness of the script-fading procedure in producing an important behavior change.

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A core symptom in the diagnosis of people with autism is a deficit in language and social skills (American Psychiatric Association, 1994). Social skills constitute a complex class of behavior that is expected to occur across a variety of different situations. A critical component of effectively teaching language and social skills is the generalization, or transfer, of behavior change from training conditions to untrained conditions including other people, objects, and events in various environments (Garcia, 1974; Stokes & Baer, 1977). The generalization of behavior change across appropriate conditions would suggest that some of the relevant stimuli may have acquired discriminative control over the behavior.

Script fading is behavior-analytic technology that can be used to teach language and social skills to people with autism. A script is a written or audiotaped word, phrase, or sentence that is presented as a model to teach conversation. A main objective of the script-fading procedure is an increase in the number of unscripted social interactions emitted by participants as the scripts are faded out. Unscripted social interactions can be defined as statements that differ from the scripts that are provided in teaching by more than verb tense, conjunctions, articles, prepositions, or pronouns (Krantz & McClannahan, 1993). As people with autism reliably emit the scripts, the scripts are faded out and the number of unscripted social interactions should increase systematically with the introduction and subsequent the fading out of the scripts (McClannahan & Krantz, 2005).

Although script fading is an effective procedure for teaching language and social skills (Krantz & McClannahan, 1993; Krantz & McClannahan, 1998; Brown, Krantz, McClannahan, & Poulson, 2008; Wichnick, Vener, Keating, & Poulson, 2010), some people with autism do not display the language and social skills beyond the circumstances under which they were initially trained. For example, people with autism may interact in the original setting where training occurred, such as the classroom, but not in other settings, such as the home. Interactions also may be restricted to the responses and the stimuli that were targeted during training. Learners may emit only the original scripts that were taught, may interact only about the objects on which scripts were attached, or may interact only the conversation partners with whom the interactions were taught. The generalization of behavior change, however, is critical when teaching language and social skills to demonstrate that some of the relevant, naturally-occurring stimuli for this complex class of behavior have acquired discriminative control. Therefore, more research on the script-fading procedure is needed to demonstrate a comprehensive, effective change in behavior.

Programming for generalization

Generalization can be defined as the spread of the effect of reinforcement from the stimuli and responses associated with reinforcement to stimuli and responses not associated with reinforcement (Catania, 1998). For a change in behavior to be effective it is crucial for that change to occur across various settings, stimuli, and responses (Stokes & Baer, 1977). Stimulus generalization refers to the extent to which a response is evoked in the presence of untrained stimuli that are similar to those that had been associated with reinforcement during training (Catania, 1998). In their seminal article on stimulus generalization, Guttman and Kalish (1956) reinforced the pecking behavior of pigeons to a response key illuminated by a yellow-orange light at a wavelength of 580 nm. After establishing this wavelength as the discriminative

stimulus, the authors then presented a variety of other wavelengths as tests for generalization. The authors observed similar levels of responding to 570 nm and 590 nm wavelengths and found that, as the wavelength became increasingly different from 580 nm, there was a corresponding decrease in the levels of responding. The plotted generalization data demonstrated a sharp gradient and, therefore, discriminative control acquired by the 580 nm wavelength. This study demonstrated that untrained stimuli with features similar to the discriminative stimulus were more likely to evoke the target response than stimuli with less similar features.

Engaging in social behavior requires a discrimination among multiple and varying stimuli, that may or may not be relevant to the given situation. If a person with language delays learns to emit social interactions in the presence of only a restricted set of stimuli, this confines the social behavior to only a certain number of situations. It may be appropriate, however, for that behavior to occur in the presence of many other similar stimuli. For example, if a child with autism is taught to emit a greeting response in the presence of teachers and peers in his classroom, then emitting a greeting response in the presence of other untrained teachers or peers from other classrooms would be a demonstration of stimulus generalization, assuming that the child did not already exhibit the response with them. In this example, one of the discriminative stimuli for interacting is the presence of other people, which evokes the greeting response. Social behavior is not functional if responding occurs only in the presence of the stimuli used during teaching, and if responding does not occur in the presence of other similar stimuli.

Response generalization is the extent to which the effects of reinforcement spread to responses not included in the reinforced class (Catania, 1998). The effects of reinforcement on the target response indirectly increase the extent to which untrained responses with a similar

function will be emitted (Keller & Schoenfeld, 1950). With this type of generalization, the variability in response topography is measured.

Response generalization is especially important when teaching social skills. Social interactions require a number of varied exchanges. Without variability, responding would be limited and appear stereotypic. This type of stereotypic responding may decrease the probability that other people will interact with the speaker. Therefore, it is essential that a speaker does emit a variety of responses that serve a similar purpose across many different situations.

When teaching social skills to people with autism, response generalization can be assessed by measuring the extent to which untrained, or novel, language is emitted. For example, if a learner is taught to say, "Hello," then responding has generalized if the learner emits novel, untrained responses such as "Hi," or "Hey," assuming that they did not already emit these responses prior to training. The topography of the two latter responses varies from that which had been originally trained, but the responses serve the same greeting function. The occurrence of novel language demonstrates that the learner has not simply memorized the language that was taught, but instead is emitting a variety of functionally equivalent responses.

Promoting generalization

The discriminations acquired in the process of training greatly affect the probability of generalized behavior change. Several steps can be taken, however, to decrease the probability that stimulus control will be restricted to training conditions only, and that the behavior change will generalize. For example, multiple exemplars of stimuli can be used during training to increase the probability of generalization from trained stimuli to untrained stimuli (Stokes & Baer, 1977). Research by Stokes, Baer, and Jackson (1974) demonstrated the effect of multiple exemplars in training on the generalization of behavior change. The authors taught a greeting

response to four children with intellectual disabilities and measured the generalization of the response to untrained people. The authors observed a greater degree of generalized responding to untrained people after the participants had received training with multiple instructors in comparison to training with only one instructor. This is an important component when teaching social skills, because of the many people with whom the learner will interact and the many situations across which social skills should be emitted.

Another method for promoting generalized behavior change is the use of stimuli common to both the training and the non-training situations. Stimuli present during training may be contrived or not likely present during non-training conditions (Dunlap & Plienis, 1988). According to Stokes and Baer (1977), however, there is a greater probability of generalized responding into an untrained setting when stimuli that have acquired stimulus control are presented in that setting. Rincover and Koegel (1975) demonstrated the effect of common stimuli on generalized responding in untrained settings. The authors taught motor-imitation and direction-following responses to ten children with autism in one setting, and measured the generalization of behavior change in an untrained setting. If generalization was not observed in the untrained setting, then stimuli from the training setting were brought into the untrained setting during subsequent assessments. The authors observed a greater extent of generalized responding when the untrained setting contained stimuli that were typically present in the trained setting. Therefore, the stimuli present during training seemed to have acquired some discriminative control of the target response and evoked the response across untrained settings.

Stimulus fading also can be used to facilitate generalization by transferring control from the distinct stimuli used during training to some of the relevant, natural stimuli in the environment. During stimulus fading, an irrelevant aspect of the stimulus is initially salient for

the purposes of discriminating that stimulus among other stimuli. That aspect of the stimulus is gradually removed and, as a result, the discriminative control is shifted to the relevant aspects of the stimulus. The overall topography of the stimulus does not change, but instead some irrelevant dimension of the stimulus is gradually altered (Etzel & LeBlanc, 1979). For example, Sidman and Stoddard (1967) taught a circle-ellipse discrimination to boys with intellectual disabilities by using a stimulus-fading procedure. Initially, the boys were presented a screen with a circle only. During successive trials, ellipses were presented faintly on the screen with the circle still present. The ellipses were gradually faded in until equally visible with the circle. At this point, stimulus control shifted from the irrelevant aspect of form versus no form on the screen, to the relevant aspect of circle versus ellipse.

Finally, the control acquired by the reinforcement contingencies can greatly affect the probability that the target behavior will generalize from training to non-training conditions. Training conditions tend to include reinforcement contingencies that are more salient and predictable than those present during non-training conditions. For example, the occurrence of the target behavior during training conditions may be followed by more potent reinforcers, such as edibles or dramatic praise (Dunlap and Plienis, 1988). A continuous schedule of reinforcement also may be used during training conditions, whereas the non-training condition schedule of reinforcement may be thin and delivered intermittently or not at all. The change from one reinforcement schedule to another can serve as a discriminative stimulus for responding or not responding.

To increase the probability that behavior change will generalize to untrained conditions, the schedules of reinforcement during training conditions should be similar to those provided in non-training conditions. For example, the use of an intermittent schedule of reinforcement in

both training and non-training conditions can increase the probability of generalization because reinforcer delivery can be scheduled similarly in both conditions. Such measures should decrease the discriminative control acquired by reinforcement schedules in the training and testing conditions and should facilitate generalized behavior change from trained to untrained experimental conditions.

Social validity measures

Another important aspect of teaching social skills to people with autism is the social importance of the behavior change. According to Baer, Wolf, and Risley (1968), one of the core dimensions of applied behavior analysis is an effective change in behavior. To be effective, a behavior change should be socially valid. Social validity measures indicate the extent to which the consumers of the behavior are satisfied with the behavior change. Although data may indicate a change in behavior, that change is important only if it has been helpful for the consumers (Wolf, 1978). This is especially true when teaching social skills because the change in behavior will affect the broad range of people with whom the participant interacts.

Research on the script-fading procedure

Scientific research in the field of behavior analysis has demonstrated that the script-fading procedure can be used to effectively increase social interactions among people with autism (Krantz & McClannahan, 1993; Krantz & McClannahan, 1998; Brown, Krantz, McClannahan, & Poulson, 2008; Wichnick, Vener, Keating, & Poulson, 2010). Nevertheless, the behavior change may be restricted to the stimuli and responses in the training situations and, therefore, generalization from training to nontraining conditions has not been demonstrated sufficiently. Most of the studies that have used the script-fading procedure to teach social

interactions have not yet provided a comprehensive demonstration of generalization from training.

In several studies, artificial stimuli used in teaching the unscripted responding were not faded out completely. For example, Krantz and McClannahan (1993) used written scripts to teach four children with autism to emit peer initiations during art activities. The authors provided each participant with a sheet of paper that contained a cue to talk and a list of ten different scripts pertaining to the stimuli present in the environment. The authors faded scripts by deleting words one at a time from the end of each script, until all scripts were blank. At the final fading step, only the blank sheet of paper with the cue to talk was present. The number of unscripted initiations emitted by the participants increased systematically as scripts were faded out. During generalization assessments across an untrained setting and stimuli, the participants were presented with a piece of paper that contained an instruction to talk to one another. Although the levels of responding were much lower than those in the training condition, the authors did observe a generalization of behavior change. Nevertheless, it is possible that the piece of paper that contained the instruction to talk served as a mediator of generalization. Moreover, it is likely that this piece of paper would not typically be present during times at which it would be appropriate to interact. Therefore, some of the relevant stimuli for interacting with other people may not have acquired the discriminative control, and it is likely that the behavior change would not be observed in the absence of the piece of paper. Furthermore, the authors did not report assessment of response generalization to determine the extent to which language varied from the original scripts. Generalization across untrained peers also was not reported and, therefore, it is unclear as to whether initiations were restricted to the peers present during training. The authors did include normative data, and found that the participants had emitted interactions that were

comparable in content and in number to those emitted by their typically developing peers. These data serve as an important measure of social validity, and support the effectiveness of behavior change as a result of the script-fading procedure. Nevertheless, the authors did not include a measure of social validity obtained by consumers or outside observers of the behavior.

Similarly, other researchers have embedded scripts within activity schedules. An activity schedule consists of pictures and/or words that cue a learner to engage in a series of activities (McClannahan & Krantz, 2005). Krantz and McClannahan (1998) embedded Language Master® cards into activity schedules to teach three children with autism to initiate to adults about recent events. The authors attached written scripts, such as “Look” and “Watch me,” to photographs of objects in the activity schedules. The children were taught to obtain the object and to initiate to an adult by emitting the script that was attached to the pertinent photograph. Scripts were faded out by removing words one at a time from the end of each script. The authors observed a systematic increase in the number of unscripted social initiations as the scripts were faded. The authors also observed a behavior change across untrained activities and in the presence of an untrained conversation recipient. Although this study did demonstrate a systematic increase in the number of social interactions emitted by the participants, stimulus control was transferred to the activity schedule after scripts were fully faded. The activity schedule became the discriminative stimulus for engaging in social interactions, rather than the appropriate cues in the environment such as the presence of other people and stimuli about which to interact. Moreover, an assessment of generalization across responses and social validity was not reported.

Similarly, Betz, Higbee, and Reagon (2008) also used script-fading procedures within activity schedules to teach social interactions among children with autism. The researchers presented an activity schedule to be shared by two children at one time. The activity schedule

consisted of various games for the children to play together. On each page of the schedule, a textual script was superimposed upon the game to be played. Scripts consisted of statements that would initiate the game-playing behavior, such as “Let’s play ____.” The pages also contained a picture of the child who was responsible for initiating the activity. As scripts were faded, the authors observed a systematic increase in the number of unscripted social interactions emitted by the children. Although levels were lower than those observed during training, the authors did observe some extent of generalized behavior change across untrained stimuli, such as novel games. Nevertheless, as in the studies by Krantz and McClannahan (1993) and Krantz and McClannahan (1998), the activity schedule acquired the discriminative control over social interactions. When the authors conducted a probe during which schedules were removed they observed that the participants did not engage in social interactions. This probe indicated that the activity schedule became the discriminative stimulus for social interactions rather than natural stimuli in the environment, such as the games and the presence of a conversation partner. Furthermore, the authors did not report assessment of generalization across novel responses or novel conversation recipients, nor did they include social validity measures.

The failure to incorporate common stimuli between training and non-training conditions also can account for a lack of generalized behavior change in studies on teaching language and social interaction skills. Stimuli that acquire discriminative control during training may be too dissimilar from stimuli that are typically presented in untrained conditions and in the natural environment. For example, Wichnick, Vener, Keating, and Poulson (2010) used a script-fading procedure to teach three young children with autism to initiate to one another about toys. Each child had their own bin that contained 10 pairs of animal toys within Ziploc© bags. The children did not interact with one another during the baseline condition, but as the script-fading procedure

was presented with the animal toys, the authors observed a systematic increase in the number of interactions emitted by the participants. The authors also observed response generalization, as demonstrated by an increase in the number of novel utterances emitted by the participants as scripts were faded. This indicated that the participants had not merely memorized the language which had been taught. Nevertheless, generalization data across untrained stimuli were variable, and interactions were not observed outside of the research session. The lack of generalized behavior change to nontraining situations suggests that discriminative control may have been confined to only those stimuli used in training. Furthermore, the authors did not report assessment of generalization across novel peers nor did they include measures of social validity.

Other researchers have attempted to use stimulus fading to transfer stimulus control from artificial stimuli to natural stimuli in the environment that would typically evoke social interactions. Sarokoff, Taylor, and Poulson (2001) used script fading with embedded textual stimuli to teach two children with autism to engage in conversation with peers. For example, the authors incorporated a package of Gummi Savers[®] into the script “Gummi Savers[®] are my favorite.” In this example, the embedded textual stimuli were the words “Gummi Savers” that appeared on the package. The authors faded scripts from end to beginning by deleting words one at a time. At the final fading step, the text that naturally appeared on the package remained, and the package acquired discriminative control for engaging in conversation. The number of unscripted initiations to peers increased systematically with the introduction of the script-fading procedure. Although this study effectively demonstrated the transfer of stimulus control to stimuli that would naturally be present in the environment, the stimuli that contained the training text were always present and responding was not measured in their absence. Therefore, it is possible that the stimuli containing the text acquired the discriminative control of social

interactions and that social interactions would not have been emitted in the absence of those specific stimuli. The authors did not report assessment of stimulus or response generalization, which would have provided information on the extent to which the relevant stimuli acquired discriminative control and the variability of language emitted by participants. Social validity measures also were not included.

MacDuff, Ledo, McClannahan, and Krantz (2007) also used stimulus fading within a script-fading procedure in an attempt to transfer the stimulus control of social interactions from artificial stimuli to natural stimuli in the environment. The authors used a script-fading procedure to teach young children with autism to initiate and to respond to others' initiations. Similar to Sarokoff, Taylor, and Poulson (2001), the authors placed scripts directly onto training stimuli. MacDuff, et al. (2007), however, used various toys and photographs in the environment that did not contain text to be used in the script. The authors observed a systematic increase in the number of social interactions emitted by each of the children as scripts were faded. Moreover, the authors observed a generalization of behavior change to untrained stimuli and settings at levels similar to those observed during training. This study demonstrated an effective transfer of stimulus control from the scripts to stimuli that would typically evoke social interactions in the natural environment. The authors did not, however, report an assessment of generalization across untrained conversation partners or untrained responses. Therefore, it is unclear as to whether language was restricted to the scripts that were taught, and if this language occurred only in the presence of the conversation partners with whom teaching occurred. Furthermore, the authors did not report an assessment of the social validity of the behavior change.

Brown, Krantz, McClannahan, and Poulson (2008) used a similar stimulus-fading strategy to transfer the discriminative control of social interactions from scripts to naturally

occurring stimuli in the environment. The authors used a textual script-fading procedure to increase the number of social interactions among three children with autism. The authors attached textual scripts directly onto stimuli in the participants' environment. Stimuli included items commonly found in a convenience store, such as candy bars, in a sporting-goods store, such as a football, and in a video store, such as videotapes. The authors created mock stores in which to present the stimuli. During script fading, scripts were deleted one word at a time, and were removed progressively from the training stimuli. The authors also changed the location of the scripts on the stimuli with each fading step. As scripts were removed, the environmental stimuli evoked the social interactions. This script-fading procedure produced a systematic increase in unscripted interactions. Moreover, the effects of the script-fading procedure generalized to untrained stimuli. The authors also measured the frequency of social interactions in an untrained, community store in a single pretest and posttest assessment. Although all participants emitted a greater number of social interactions in the posttest than in the pretest, this change in behavior merely correlates with baseline and treatment measures and cannot be shown to have been caused by the treatment procedure. To show a causal relation, frequent assessments of generalization in the community settings that changed systematically with the introduction of the treatment procedure in the treatment setting would have to have been obtained. The authors also did not report an assessment of response generalization to determine the extent to which language varied as scripts were faded. Furthermore, an assessment of social validity and generalization across untrained conversation partners was not reported.

All of these researchers were successful in increasing unscripted social interactions emitted by people with autism. Nonetheless, not one of these studies contains a comprehensive assessment of an effective change in social behavior, in which generalization is assessed across

novel responses, novel stimuli, and novel conversation recipients, and in which social validity is measured. In most of the studies, the discriminative control of the social interactions was restricted to stimuli that are not usually present in a typical environment. Although the script-fading procedures reviewed produced unscripted social interactions, only two of the studies have provided generalization data that would suggest the transference of stimulus control of social interactions from scripts to natural stimuli in the environment (MacDuff, et al, 2007; Brown, et al., 2008). Furthermore, only the study by Krantz and McClannahan (1998) included an assessment of generalization across untrained conversation recipients, and none of the studies included a measure of social validity.

None of the studies reviewed reported an assessment of generalization from a treatment setting to the home setting or in the presence of the participants' siblings. For language to be functional, however, it must generalize to other untrained people and settings after being taught in the training situation (Harris, 1975). Generalization across untrained people and settings suggests that some appropriate stimuli may have acquired discriminative control. Therefore, generalization in the untrained home setting in the presence of untrained siblings would provide additional evidence that functional social behavior has been acquired.

Furthermore, siblings serve as social partners in the home setting with whom many interactions may occur that affect development (Knott, Lewis, & Williams, 2007). Children with autism, however, are less likely to interact with their siblings because of the social-skills deficit characteristic of the disorder. In fact, Kaminsky and Dewey (2001) found that siblings of children with autism reported lower levels of intimacy, prosocial behavior, and nurturance by their siblings with autism in comparison to the levels reported by siblings of typically developing children. Therefore, the present study will address one aspect of the problem for typically

developing siblings: establishing social interaction in the home setting as a function of script-fading procedures used in the treatment setting with the sibling with autism.

The aim of this study was to use a script-fading procedure to teach three children with autism to initiate to each other about naturally-occurring stimuli in their environment, and to measure the generalization of behavior change in the presence of typically-developing siblings in the home setting. This study incorporated the use of multiple stimulus exemplars, common stimuli, stimulus fading, and intermittent reinforcement contingencies to increase the probability of generalized behavior change to some of the relevant conditions for social initiations. This study assessed generalization across untrained stimuli, settings, and responses, and included a social validity assessment to analyze the extent to which there was a perceived change in behavior with the use of the script-fading procedure.

Method

Participants and Setting

The participants included three boys attending a day school and intervention program for children with autism. Prior to enrollment, each of the participants had received diagnoses of autism from an outside agency. The participants had been attending the school for three to five years, and demonstrated minimal social interaction skills. All participants were able to follow a written activity schedule, and had a history of learning with the script-fading procedure.

At the beginning of the study, Ollie was an 8-year-old boy who demonstrated limitations in conversational and spontaneous language with both his teachers and his peers. Ollie scored 86 on the socialization domain of the Vineland Adaptive Behavior Scale, 2nd ed. (Sparrow, Balla, & Cicchetti, 1984), falling in the 18th percentile. Ollie's verbal IQ on the Wechsler Intelligence Scale for Children, 4th ed. (Wechsler, 2003), was 89, falling in the 23rd percentile. Ollie was

enrolled in the program only 8 months prior to the beginning of the study and, therefore, had the least experience with scripts and script-fading procedures amongst the participants.

Aiden was a 7-year-old boy who also demonstrated limited conversational and spontaneous language. Aiden scored 68 on the socialization domain of the Vineland Adaptive Behavior Scale, 2nd ed., with an age equivalent of 2 years 2 months. Aiden received a verbal IQ of 87 on the Stanford-Binet Intelligence Scale, 5th ed., falling into the 19th percentile, and with an age equivalent of 4 years 3 months (Roid, 2003). Aiden received a core language score of 58 on the Clinical Evaluation of Language Fundamentals, 4th ed. (Semel, Wiig, & Secord, 2003), with a percentile rank of 0.3.

Ian was a 10-year-old boy who emitted spontaneous language, and who occasionally interacted with his peers. Ian received a core language score of 50 on the Clinical Evaluation of Language Fundamentals, 4th ed., with a range of age equivalents on the subtests from 5 years 5 months to 7 years 0 months.

The research was conducted in two different classrooms at the program throughout the school day. The classrooms measured about 4.0 m x 7.5 m and 3.35 m x 3.35 m, and were each furnished with desks, tables, chairs, bookcases, computers, and a television.

Stimuli

Throughout the school day, the participants followed a textual activity schedule on either an Apple iTouch © or on a printed sheet of paper, depending upon the skill level of the participant. Activity schedules consisted of the activities that were typically presented to them on a daily basis, which included academic, self-care, and leisure activities. This study focused on the social initiations that occurred when the participants were together when playing games on the laptop, engaging in a Lego© model-building task, and eating lunch together. Multiple

exemplars of stimuli that are typically present during each of these activities were presented to the participants. For example, the participants had the opportunity to play several different laptop games and to build different Lego© models, and had various different utensils, containers, and dishes during lunch. Within the laptop activity, one program and five internet websites were used as training stimuli. Six Apple iPad© games were used as probe stimuli to assess generalization. Within the model-building activity, a random-number table was used to designate six exemplars as training stimuli and six as probe stimuli to assess generalization. Within the lunch activity, three sets of stimuli available at the school were selected as training stimuli. Two different lunches and a dessert were used to assess generalization. Table 1 displays the training and generalization exemplars for each of the activities. All participants had a history of engaging in these activities, although they might not have had a history of engaging in specific exemplars within the activities. For example, all of the participants have played Apple iPad© games, but might not have played a certain game until this study.

Prior to baseline data collection, a discrimination task was conducted to assess the extent to which the participants could discriminate training from generalization probe exemplars within each category. Discrimination of exemplars within the laptop activity was assessed by presenting participants with photographs of each laptop website or Apple iPad© game, that each measured about 7.62 cm x 7.62 cm. For the model-building activity, participants were presented with the plastic containers in which the models were packaged, that each measured about 14.73 cm x 10.16 cm. For the lunch activity, the participants were presented with the materials and utensils that were used during the sessions

Data were collected on each of the three activities once per school day. For each session, one exemplar from each of the three activities was selected for each participant by using a

random number table. For the laptop and model-building activities, each participant was assigned a different exemplar. For the lunch activity, however, the exemplar selected was used for all three participants. During each session, the three participants were seated together and had all necessary materials for the given activity. Data collection for each session began when the instructor provided a verbal cue to begin the activity, such as “Enjoy your lunches,” “Have fun on computers,” or “You can build your models together.” The session ended exactly 15 min following the delivery of the verbal cue.

The scripts were placed in a manner similar to that of Brown, et al. (2008) to increase the probability that stimulus control would transfer from the scripts to the training stimuli. For each participant, printed scripts were superimposed upon the training stimuli only. The location of scripts on the training stimuli changed daily. The scripts were printed in 17-point condensed Helsinki font on clear self-adhesive labels. The scripts measured about 1cm high and the length was determined by the number of words in the script. The scripts were attached to each training stimulus in an area that did not contain text. Scripts consisted of statements that referred to the given activities. For example, when playing on the laptop, two of Ollie’s scripts were, “I love this game,” and “Check out what I’m playing.” Stimuli used to assess generalization never had scripts superimposed upon them.

Dependent Variables

Initiation. An initiation was defined as any phrase, sentence, or question that was emitted independent of instructor prompts (Krantz & McClannahan, 1993), and was directed toward a peer. Initiations did not have to be grammatically correct. Verbal productions that were repeated consecutively by the participant were not scored as initiations. Repeating an initiation that had just been emitted by a peer was not scored as an initiation. One-word utterances and greetings to

a peer (e.g., “Hi Ian”) also were not scored as initiations. For an initiation to count as being directed toward a peer, the participant needed to have head orientation toward a peer for a duration of at least 1s while emitting an initiation, or to have included one of the peer’s names in the initiation.

Scripted initiation. A scripted initiation was defined as a verbal production that matched a printed script provided for the participant, with the exception that conjunctions, articles, prepositions, pronouns, and verb tense may have changed. For example, if the script was “I love this game,” and the participant said, “You love this game,” then this was scored as a scripted initiation. Adding the peer’s name to the end or beginning of a script also was counted as a scripted initiation (Krantz & McClannahan, 1993). Once script fading began, an initiation that matched the original script provided for that participant still was scored as scripted.

Unscripted initiation. An unscripted initiation was defined as a verbal production that differed from the script by more than conjunctions, articles, prepositions, pronouns, or changes in verb tense (Krantz & McClannahan, 1993). For example, if the script was “I love this game,” then the statement “I like this game” was scored as an unscripted initiation.

Novel initiation. An initiation was scored as novel if it had never been emitted by the participant at any previous time for a given activity during the study. A novel initiation was the initial occurrence of an unscripted initiation emitted by the participant.

Measurement

Data were collected on the number of initiations emitted by each participant. A verbatim transcript of each utterance emitted by the participants also was recorded. Observers scored the initiations that were emitted without instructor prompts, as well as any initiations that may have required instructor prompts. Training data were graphed as the number of scripted and unscripted

initiations emitted at school with peers. Generalization data were graphed as the number of unscripted initiations emitted across untrained stimuli at school with peers, and as the number of unscripted initiations emitted in the untrained home setting with a sibling. A cumulative record was used to display the number of novel initiations emitted throughout the course of the study.

General Procedure

Data were collected for each participant during the school day. Each participant followed an activity schedule (McClannahan & Krantz, 2005) that was presented on either an Apple iTouch© or on a printed sheet of paper. The activity schedules consisted of the participants' typical academic, self-care, and leisure activities. The order of these activities varied on a daily basis. In each participant's schedule were cues to engage in the target activities with a peer, such as "play computers with Ollie and Ian," "build a model with Aiden and Ollie," or "eat lunch." These cues appeared once for all three activities throughout each participant's activity schedule. These were cues that would typically appear in the participants' activity schedules on any given school day. The participants also may have received a verbal instruction from an adult to engage in the activity, such as "Go play computers with Ian and Aiden." This verbal instruction was similar to one that the participants might have received in the home setting from one of their parents. After reading the instruction in their schedule, or being given the verbal instruction, the participants would recruit each other and obtain the activity. Prior to obtaining the activity, the pre-selected stimulus for that activity was set up by an instructor and available for the participants to use. Participants were allowed to engage in each of the activities for a duration of 15 min. In cases where necessary, instructors used hand-over-hand manual guidance, delivered from behind, to teach the participants appropriate play skills and eating responses. Manual guidance was faded from hand-over-hand to wrist, to arm, to elbow, and to shoulder. Instructors

then shadowed and gradually decreased their proximity to the participants (Krantz & McClannahan, 2005). Although manual guidance was faded as quickly as possible, the previous step in the prompt-fading sequence was reintroduced, if needed, and faded again when possible.

Reinforcers were delivered contingent upon the occurrence of peer initiations according to the participants' individualized motivational systems throughout all experimental conditions, except during generalization assessments. This contingency helped to rule out the interpretation that reinforcement alone, rather than the script-fading procedure, produced the increase in social initiations. The participants' individualized token motivational systems consisted of a designated number of checkmarks that could be earned throughout the day. When the designated number of checkmarks was earned, the participants were able to exchange for a preferred snack, toy, or activity. The participants had the opportunity to make at least two exchanges for a back-up reinforcer during each 15-min activity. Behavior-specific praise and physical touch also were delivered contingent upon the occurrence of peer initiations.

Initiations were always followed by responses from one of the participants. If responses to initiations were not emitted independently, then instructors manually prompted the participant to orient to the participant who was initiating. If this manual prompt to orient was not sufficient in evoking a response to the initiation, then instructors provided a verbal or textual cue. Responses consisted of general phrases such as, "That's cool" or "Awesome," unless a more specific answer was appropriate. For example, if the participant initiated the question, "What game are you playing?" then a peer would be prompted to emit the correct answer. Responses to initiations were reinforced and prompted across baseline and training conditions, as well as during generalization assessments across untrained stimuli and in the untrained home setting.

Data were not collected on responses to peer initiations because they were not free to vary in this study.

Baseline. Scripts were not superimposed upon any of the stimuli during the baseline condition. Reinforcement was available for initiations. The magnitude of reinforcer delivery was greater for the occurrence of novel initiations than for initiations that had been emitted previously to promote variable language. For example, five tokens might have been delivered for novel initiations, whereas one token might have been delivered for an initiation that had been emitted previously.

Training. During a given training session, printed scripts were superimposed upon the training stimuli. Using hand-over-hand manual guidance from behind the learner, instructors taught the participant to point to and to read the script. Manual guidance was faded in the same manner as when teaching appropriate play skills and eating responses. If the script was not emitted correctly, then the instructor manually prompted the participant to point to the script again until the script was emitted correctly. Verbal prompts were not required to teach the participants to emit the scripts. Script fading began after at least four of the five scripts were emitted correctly for one session. Subsequent script-fading steps were introduced after the participant emitted a total of at least five initiations, scripted and/or unscripted, for one session. Scripts were faded by deleting one word at a time from the end of the script, until all words were removed. Scripts and script-fading steps for each of the participants are displayed in Tables 2-4. The fading of manual guidance was not related to the fading of scripts. Manual guidance was faded and reintroduced, if needed, within a given session dependent upon the participant's performance.

Initially, instructors delivered reinforcers for both prompted and unprompted initiations. Instructors delivered reinforcers only for unprompted initiations when the participant emitted at least two unprompted initiations within a single session. With the introduction of each fading step, instructors delivered reinforcers contingent upon the occurrence of each unscripted initiation. Instructors then shifted from a continuous to an intermittent schedule of reinforcement after the participants had emitted five unscripted initiations within a given session. Magnitude of reinforcer delivery was greater for the occurrence of novel initiations than for scripted initiations to promote variable language. For example, five tokens might have been delivered for novel initiations, whereas one token might have been delivered for a scripted initiation. Instructors provided a very limited amount of behavior-specific praise, if any, for the occurrence of initiations. Behavior-specific praise was directed to orienting responses more than to language-based responses.

Generalization. Generalization was assessed across untrained stimuli in school and the untrained home setting with a sibling throughout the study, with the exception that generalization was not assessed during the first or last session of either the baseline or the training conditions. At least three data points were obtained for each form of generalization during the baseline and training conditions.

During a stimulus-generalization session, untrained stimuli were never presented with a script. Because there was a measure of generalization across stimuli, an assessment first was conducted to ensure that the participants could discriminate amongst the stimuli. Therefore, prior to baseline data collection, a discrimination task was conducted to assess the extent to which the participants could discriminate among the different exemplars within each category. For example, with the model-building activity, the instructor might have asked the participant to,

“Find the police car,” among the array of six models. During the discrimination task, training and generalization probe stimuli were presented together. By ensuring that the participants could discriminate amongst the stimuli, any occurrence of social initiations in the presence of untrained stimuli during training could then be attributed to stimulus generalization rather than to a failure to discriminate.

Generalization from school with peers to the untrained home setting with a sibling was assessed by having the participants engage in the activities selected for training with a sibling in each of their homes. Therefore, this generalization assessment consisted of both an untrained setting and an untrained conversation partner. The same sibling participated as the untrained conversation partner throughout the duration of the study. The participants used the stimuli within each activity with which scripts were presented in the school setting, but no scripts were presented with these stimuli in the untrained home setting. The training stimuli were used in the home setting in an effort to increase the likelihood of generalization from the school setting. During generalization assessments across untrained stimuli in school with peers and in the untrained home setting with a sibling, the occurrence of social initiations was not prompted or reinforced.

Experimental Design

This study used a multiple-baseline across-responses design. This experimental design was used to assess the effects of a script-fading procedure on the number of scripted and unscripted initiations emitted across three activities by each of the three children with autism. The effect of the script-fading procedure on the generalization of initiations across untrained stimuli in school with peers and in the untrained home setting with a sibling was assessed.

Interobserver Agreement

Two observers simultaneously collected data for each participant on separate data sheets. Observers stood across the table from one another, and compared their data after the session ended. An agreement was scored when both observers matched in their records of the occurrence or non-occurrence of an initiation, as well as in their verbatim account of an initiation. Discrepancies in plural endings, articles, prepositions, verb tense, pronouns, and conjunctions still counted as an agreement. Disagreements consisted of a mismatch in their records on the occurrence or non-occurrence of an initiation, or when their verbatim accounts of an initiation differed by more than plural endings, articles, prepositions, verb tense, pronouns, or conjunctions. Interobserver agreement was calculated for each participant by dividing the number of agreements by the number of agreements plus disagreements, and multiplying this number by 100%.

Interobserver agreement on the verbatim records of initiations was obtained for at least 33% of sessions for each participant across activities and experimental conditions. The means and ranges of scores of interobserver agreement on scripted and unscripted initiations for each participant across activities and experimental conditions are shown in Tables 5-7.

Social Validity

Social validity was assessed by asking 10 people trained in the field of applied behavior analysis and 10 people not trained in the field of applied behavior analysis to view 1-min videotaped segments of sessions of the participants in the untrained home setting with the sibling. People trained in the field of applied behavior analysis consisted of instructors who worked at The New York Child Learning Institute. People not trained in the field consisted of administrative professionals who worked outside of the institute. Segments for the baseline

condition were selected from sessions in the untrained home setting that corresponded in time with sessions in the trained school setting during which all three participants were in the baseline condition for the given activity. Segments for training were selected from sessions in the untrained home setting that corresponded in time with sessions in the trained school setting during which all scripts had been fully faded for all three participants. These segments were selected for each of the three activities across the three participants, for a total of 6 segments per participant, and a grand total of 18 segments.

Prior to viewing the segments, the principal investigator stated that the purpose of the study was to teach the children to talk to each other. For each segment, the people viewing the sessions were asked to indicate whether the participants were in the baseline or the training condition. The principal investigator defined baseline as the “before” condition, and training as the “after” condition. The answers provided by viewers indicated the extent to which each segment was perceived to have been affected by the script-fading procedure. A random-number table was used to select the order in which the 18 segments were presented. The social validity questionnaire is presented in Table 8.

Results

With the introduction of the script-fading procedure, there was a systematic increase in the number of unscripted initiations emitted by all three participants across the three activities. Figures 1-3 demonstrate that the participants did emit few unscripted initiations during the baseline condition. Ollie and Aiden, whose data are displayed in Figures 1 and 3, emitted a range of between 0 and 6 unscripted initiations during the baseline condition. Ian demonstrated similar behavior during the baseline condition for the laptop and lunch activities, but emitted a range of between 0 and 16 unscripted initiations during the baseline condition for the model building

activity (see Figure 2). Following the introduction of scripts, Ollie emitted all five scripts within three to five sessions for the three activities, as shown in Figure 1. Ian and Aiden, as shown in Figures 2 and 3, emitted all five scripts within four or five sessions for the laptop, and within only one session for the model-building and lunch activities. Script fading for each activity began after at least four of the scripts were emitted for that given activity within a single session. As shown by the open circles in Figures 1-3, unscripted initiations increased systematically with the introduction of script fading across all three activities for each of the participants. After the scripts were fully faded, as denoted by F5 for each activity, the participants continued to reliably emit unscripted peer initiations across the three activities. Throughout the course of teaching, Ollie, Ian, and Aiden emitted a mean of 16, 13, and 5 unscripted initiations per session for the laptop activity, respectively. Similar results were obtained for each of the participants for the model-building and lunch activities.

Furthermore, with the introduction of the script-fading procedure on the training stimuli, there was a systematic increase in the number of initiations emitted in the presence of the untrained generalization probe stimuli. The number of initiations emitted in the presence of the untrained generalization probe stimuli in the school setting with peers is shown in Figures 4-6. As displayed in Figure 4, during the baseline condition, Ollie did not emit any unscripted initiations during the laptop activity, only one initiation during the model-building activity, and a range from between 0 and 3 unscripted initiations during the lunch activity. These baseline data are similar for Aiden, as displayed in Figure 6. Ian's baseline data are similar for the laptop and lunch activities, but demonstrated a range of between 0 and 8 unscripted initiations during the baseline condition for the model-building activity (see Figure 5). As scripts were introduced and faded in the presence of training stimuli, the number of unscripted initiations in the presence of

generalization probe stimuli increased systematically across the three activities. The participants continued to emit a reliably high number of unscripted initiations throughout the course of the study. After scripts had been fully faded during training for the laptop, Ollie, Ian, and Aiden emitted a mean of 19, 10, and 8 unscripted initiations, respectively. The mean number of unscripted initiations was similar for each of the participants during the model-building and lunch activities.

The discrimination-assessment procedure showed that all three participants discriminated between the training and probe stimuli prior to the first baseline session. All three participants performed with 100% accuracy on the discrimination task provided for the laptop and Apple iPad© stimuli. For the model building and lunch activities, performance had a range of between 80% and 100% accuracy for the training and generalization probe stimuli.

In the untrained home setting with a sibling, the number of unscripted initiations increased systematically with the introduction of script fading in the trained school setting with peers. Figures 7-9 demonstrate that Ollie and Aiden emitted few, if any, unscripted initiations during the baseline condition for all three activities. Ian, however, emitted up to four unscripted initiations during the baseline condition for each of the activities, although this behavior decreased over successive sessions (see Figure 8). The number of unscripted initiations in the untrained home setting with a sibling demonstrated a systematic increase as the script-fading procedure was introduced in the trained school setting with peers. The participants continued to emit a reliably high number of unscripted initiations throughout the rest of the study. After scripts had been fully faded from the training stimuli in the school setting, Ollie emitted a mean of 19, 11, and 7 unscripted initiations during the laptop, model-building, and lunch activities,

respectively. Similar results were obtained for Ian. Aiden emitted a mean of 9, 15, and 6 unscripted initiations during the laptop, model-building, and lunch activities, respectively.

Social validity data obtained from 1-min video clips in the untrained home setting with a sibling showed that viewers trained in applied behavior analysis (n=10) could discriminate between video clips obtained during baseline and training conditions at school. Viewers not trained in applied behavior analysis (n=10) responded similarly. Table 9 displays the data as the percentage of identification of video clips as displaying behavior affected by the script-fading procedure. Each percentage represents one of the 18 video clips that was presented to each of the viewers. Low percentages indicate the perception that the script-fading procedure was not used, whereas high percentages indicate the perception that the script-fading procedure had been used. Baseline video clips had a range of between 0% and 10% for the viewers trained in applied behavior analysis. Results were similar for the viewers not trained in applied behavior analysis, with the exception that 80% of the viewers identified behavior observed during Ian's baseline laptop activity as an outcome of the script-fading procedure, and that 30% of the viewers provided the same result for behavior observed during Aiden's baseline lunch activity. For video clips obtained after script fading in the trained school setting, 100% of the viewers trained in applied behavior analysis indicated that the script-fading procedure had been implemented, and viewers not trained in applied behavior analysis had a range of between 80% and 100%.

Finally, the cumulative number of novel initiations emitted by each of the three participants increased systematically with the introduction of the script-fading procedure. Figures 10-12 display the data obtained in the presence of the training stimuli for each of the participants across the three activities in the trained school setting with peers. As shown in Figure 10, Ollie emitted a range of between 0 and 16 novel initiations during the baseline condition for each of

the three activities. Ian, whose data are displayed in Figure 11, emitted a range of between 12 and 37 novel initiations during the baseline condition. As shown in Figure 12, Aiden emitted a range of between 5 and 25 novel initiations during baseline. With the introduction of the script-fading procedure, however, the number of novel initiations increased systematically for all three participants across the three activities. By the conclusion of the study, Ollie emitted a total of 376, 282, and 133 novel initiations for the laptop, model-building, and lunch activities, respectively. Similar results were obtained for Ian. For Aiden, a total of 123, 108, and 142 novel initiations were emitted during the laptop, model-building, and lunch activities, respectively.

There also was a systematic increase in the cumulative number of novel initiations emitted in the presence of the generalization probe stimuli in the trained school setting with peers. As shown in Figure 13, Ollie emitted a range of between 0 and 6 novel initiations during the baseline condition across the three activities. Similar results were obtained for Aiden, as shown in Figure 15. Ian's data are displayed in Figure 14. Ian emitted 13, 4, and 17 novel initiations during the baseline condition for the laptop, lunch, and model-building activities. When the script-fading procedure was introduced with the training stimuli in the trained school setting with peers, the cumulative number of novel initiations increased systematically for all three participants across the three activities. By the conclusion of the study, Ollie had emitted a total of 250, 157, and 43 novel initiations in the presence of the generalization probe stimuli for the laptop, model-building, and lunch activities. Similar results were obtained for Ian. Aiden had emitted a total of 103, 58, and 55 novel initiations during the laptop, model-building, and lunch activities by the conclusion of the study.

The cumulative number of novel initiations also demonstrated a systematic increase in the untrained home setting with a sibling for each of the participants across the three activities.

As shown in Figure 16, Ollie emitted a range of between 0 and 3 novel initiations during the baseline condition across the three activities. Similar results were obtained for Aiden, as shown in Figure 18. As displayed in Figure 17, Ian emitted a range of between 8 and 11 novel initiations during the baseline condition for each of the three activities. After the script-fading procedure had been introduced with the training stimuli in the trained school setting with peers, there was a systematic increase in the cumulative number of novel initiations emitted by each of the participants across the activities. By the end of the study, Ollie emitted a total of 170, 75, and 19 novel initiations during the laptop, model-building, and lunch activities in the trained home setting with a sibling. Ian emitted a total of 91, 67, 34 novel initiations during the laptop, lunch, and model-building activities, respectively. Aiden emitted a total of 66, 57, and 18 novel initiations during the laptop, model-building, and lunch activities, respectively, by the conclusion of the study.

In summary, this study demonstrated a functional relation between a script-fading procedure and the number of peer initiations emitted by three young children with autism. The number of unscripted peer initiations increased systematically following the introduction of the script-fading procedure. These findings are similar to those reported in the literature (e.g., Krantz & McClannahan, 1993; Krantz & McClannahan, 1998; Betz, Higbee, & Reagon, 2008; Brown, Krantz, McClannahan, & Poulson, 2008; MacDuff, Ledo, McClannahan, & Krantz, 2007; Wichnick, Vener, Keating, & Poulson, 2010). Moreover, the number of unscripted initiations emitted in the presence of generalization probe stimuli and in the untrained home setting increased systematically as scripts were faded. These generalization data demonstrate that some of the relevant stimuli for initiating to peers have acquired discriminative control. Novel initiations also increased systematically with the introduction of the script-fading procedure.

Moreover, the results of the social validity questionnaire demonstrate the perceived difference in behavior following the use of the script-fading procedure.

Discussion

This study demonstrated a functional relation between the script-fading procedure and the number of unscripted initiations emitted by children with autism. Because there was a systematic increase in the number of unscripted initiations as scripts were faded out, one may conclude that the script-fading procedure caused the increase in the occurrence of unscripted initiations. The data displayed in Figures 1 through 3 demonstrate that the stimulus control for emitting a social initiation transferred from the scripts to the objects on which the scripts were attached. This transfer in stimulus control was demonstrated by the corresponding increase in the number of unscripted initiations as the number of scripted initiations decreased. The scripts no longer came to evoke the initiations, but instead the objects on which the scripts were attached.

These data demonstrate that this script-fading procedure is an effective method for promoting the generalization of social initiations across generalization probe stimuli and in the untrained home setting with siblings (see Figures 4-9). The generalization of initiations across generalization probe stimuli and in the untrained home setting were the result of a combination of several procedures. First, this study trained to multiple exemplars of stimuli within each activity. Training to multiple and diverse stimuli within each activity increased the likelihood that responding would generalize to other similar, untrained stimuli (Stokes & Baer, 1977).

Second, the use of common stimuli might have increased the probability that initiations would generalize from the trained school setting to the untrained home setting. In this study, common stimuli were used in both the trained school setting and in the untrained home setting. One can infer that social initiations generalized to the home setting in part because the laptop,

model-building materials, and stimuli used during lunch had acquired some extent of stimulus control over the behavior by being used during training with the script-fading procedure.

Because these stimuli were common to both settings, it was probable that initiations were more likely to occur in the home setting.

Third, the script-fading procedure is a stimulus-fading procedure that is designed to decrease the discriminability between training and testing reinforcement contingencies. As the scripts were faded from the stimuli onto which they are attached, it was likely that discriminative control transferred from the scripts to the stimuli on which they were attached. Also, as the scripts were faded, some of the training stimuli did not contain any portions of a script, whereas portions of a script still remained on other stimuli. At this point, the contingencies of reinforcement between training and generalization stimuli became less salient, and initiations were just as likely to occur in the presence of both types of stimuli. Brown, et al. (2008) used a similar fading procedure in which control of the interactions was less likely to be acquired by the reinforcement contingencies. It is likely that these less predictable contingencies contributed to generalization across untrained stimuli. This study obtained a similar stimulus generalization outcome.

Because there was a systematic change from baseline to training across activities in the cumulative number of novel initiations emitted by each participant, one also can conclude that the script-fading procedure caused the increase in the novelty of responding. Because the increase in novelty was not the result of experimenter manipulation of the antecedent stimuli for engaging in social initiations, one can infer that the process underlying this increase in novelty is response generalization from scripted to unscripted initiations. As scripts were faded out, portions of the scripts still remained and the participants emitted either the original script that

was provided, or completed the statement with language that was not taught as a script. An analysis of the list of novel initiations provided in the Appendix demonstrated that the participants emitted statements similar to each other's scripted and unscripted initiations. It can be inferred from the similarities in these initiations that the participants imitated portions of their peer's language, as may be casually observed in the language development of typically developing children.

The results obtained from the social validity questionnaire demonstrated additional support for the effectiveness of the script-fading procedure. Based on sessions conducted in the participants' untrained home setting with a sibling, a majority of both viewers trained and not trained in the field of applied behavior analysis were able to accurately identify video clips as either the baseline or training condition. For one clip, however, the accuracy of identification was far lower than for the other clips. Viewers not trained in applied behavior analysis were 20% accurate in identifying one of Ian's laptop video clips as the baseline condition. In other words, the error was to score the baseline clip as a treatment clip. This could be due to several factors. In the video clip, Ian emits an utterance, although it was not directed to his sibling. Furthermore, due to the randomization of video clips, this video clip was preceded by three video clips that had been recorded during the baseline condition. Therefore, the viewers may have identified this video clip as the training condition, given the occurrence of the one utterance. The overall outcome of the social-validity assessment, however, indicated that the script-fading procedure did produce a socially important change in behavior. Moreover, anecdotal reports indicated that parents were pleased with the outcome of the study, and that they truly enjoyed seeing their children playing and interacting with one another.

Many researchers have used script-fading procedures to teach social interaction skills to people with autism. Nevertheless, from the studies reviewed, only MacDuff, et al. (2007) and Brown, et al. (2008) have demonstrated a transfer of stimulus control from scripts to naturally occurring stimuli in the environment that would be appropriate for evoking social interactions. Although MacDuff, et al. (2007) and Brown, et al. (2008) demonstrated generalization of interactions across novel stimuli, generalization of interactions across untrained conversation partners was not included. Therefore, it is possible that interactions were restricted to those adults present during training. Other people with whom the participants are familiar, however, would be other relevant stimuli for evoking interactions, and interactions should occur in their presence. The present study, however, demonstrated a generalization of initiations across both untrained stimuli and untrained conversation partners. As a result, it can be inferred that both the untrained stimuli and the untrained conversation partner became relevant cues for evoking initiations. In addition, neither MacDuff, et al. (2007) nor Brown, et al. (2008) reported an assessment of the novelty and, therefore, variability, of the unscripted interactions emitted by participants. The present study, however, demonstrated a systematic change in the novelty of initiations as a result of the script-fading procedure. The cumulative records of the novel initiations emitted by each participant provided support for the variability in initiating caused by the script-fading procedure. Furthermore, social validity data were not included in either of these former studies. From the script-fading literature reviewed, the present study was the first to have assessed social validity through the evaluations of outside observers.

This study confirmed that a script-fading procedure can improve the social skills of young children with autism, despite verbal or social-skill deficits. This study also has extended the research on the script-fading procedure by assessing generalization across untrained

conversation partners in the home setting and providing an assessment of social validity that has not yet been measured. There are, however, several limitations that future researchers might address. For example, in this study, reinforcement contingencies for initiating were not fully faded out. Future studies might attempt to fade reinforcer delivery to help maintain behavior in the absence of an instructor. Perhaps reinforcer delivery could be delivered and faded from the conversation recipient to increase the likelihood that the behavior is maintained by natural contingencies. In addition, this study did not include normative data for comparative purposes. Therefore, although there was an increase in the number of initiations, it cannot be determined if the behavior was similar to that of their typically developing peers. Furthermore, the novelty of the initiations could be compared to a normative sample to examine the extent to which typically developing children are emitting variable language. Data also were not collected on the integrity of the experimental procedure. Therefore, extent to which the procedure was applied as described cannot be determined. Moreover, it is possible that the primary investigator acquired some extent of discriminative control over the occurrence of initiations. The primary investigator was present during all baseline, training, and generalization sessions. Therefore, it is possible that the primary investigator served as a discriminative stimulus for initiating. Future researchers could vary or fade instructor proximity to decrease the likelihood that initiations are under the discriminative control of an instructor. Finally, this is the first study in the script-fading literature to have assessed social validity through the evaluations of outside observers. In future studies, researchers might assess social validity through a rating scale, as opposed to the simple discrimination test that was used in this study. Researchers might want to empirically examine these questions in a similar study.

Table 1. *Training and generalization probe stimuli for each activity*

Activities	<u>Training stimuli</u>	<u>Generalization probe stimuli</u>
Laptop	<u>Internet games:</u> www.kids.aol.com www.pbskids.org www.nick.com www.disney.com Super Mario Flash Apple Photobooth	<u>Apple iPad© games:</u> Where's My Water Six Towers Cut the Rope Angry Birds Glow Draw Bugdom
Model building	Blue Bullet Racecar Mini Helicopter Mini Fire Rescue Demon Destroyer Truck Mini Plane Urban Enforcer Car	Smokin' Slickster Racecar Nitro Muscle Racecar Mini Digger Truck Turbo Tow Truck Mini Sports Car Rod Rider Car
Lunch	Paper plates, plasticware, styrofoam cup Plastic plates, silverware, plastic cup Ceramic plates, silverware, ceramic mug	MacDonald's Happy Meal, MacDonald's napkin, Macdonald's cup Cascarino's personal pizza, Cascarino's cup, Cascarino's napkin Baskin Robbin's Ice Cream to-go, Baskin Robbin's spoon, Baskin Robbin's napkin

Table 2. *Scripts and script-fading steps for Ollie across each of the activities*

Ollie	Scripts	Fading Step 1	Fading Step 2	Fading Step 3	Fading Step 4	Fading Step 5
Laptop	<ol style="list-style-type: none"> 1. Computer games are fun 2. I love this game 3. This game is cool 4. Check out what I'm playing 5. Playing on computers is awesome 	<ol style="list-style-type: none"> 1. Computer games are 2. I love this 3. This game is 4. Check out what I'm 5. Playing on computers is 	<ol style="list-style-type: none"> 1. Computer games 2. I love 3. This game 4. Check out what 5. Playing on computers 	<ol style="list-style-type: none"> 1. Computer 2. I 3. This 4. Check out 5. Playing on 	<ol style="list-style-type: none"> 1. 2. 3. 4. Check 5. Playing 	All scripts are fully removed
Model building	<ol style="list-style-type: none"> 1. Your model looks cool 2. Let's build together 3. Look at what I'm building 4. This model is tough 5. These Legos are awesome 	<ol style="list-style-type: none"> 1. Your model looks 2. Let's build 3. Look at what I'm 4. This model is 5. These Legos are 	<ol style="list-style-type: none"> 1. Your model 2. Let's 3. Look at what 4. This model 5. These Legos 	<ol style="list-style-type: none"> 1. Your 2. 3. Look at 4. This 5. These 	<ol style="list-style-type: none"> 1. 2. 3. Look 4. 5. 	All scripts are fully removed
Lunch	<ol style="list-style-type: none"> 1. My food is so good 2. Lunch time is my favorite 3. I love eating lunch 4. This tastes so yummy 5. Look what I'm eating 	<ol style="list-style-type: none"> 1. My food is so 2. Lunch time is my 3. I love eating 4. This tastes so 5. Look what I'm 	<ol style="list-style-type: none"> 1. My food is 2. Lunch time is 3. I love 4. This tastes 5. Look what 	<ol style="list-style-type: none"> 1. My food 2. Lunch time 3. I 4. This 5. Look 	<ol style="list-style-type: none"> 1. My 2. Lunch 3. 4. 5. 	All scripts are fully removed

Table 3. *Scripts and script-fading steps for Ian across each of the activities*

Ian	Scripts	Fading Step 1	Fading Step 2	Fading Step 3	Fading Step 4	Fading Step 5
Laptop	<ol style="list-style-type: none"> 1. I like playing computer games 2. This game is so fun 3. Look at my game 4. My game is sweet 5. Computer games are really cool 	<ol style="list-style-type: none"> 1. I like playing computer 2. This game is so 3. Look at my 4. My game is 5. Computer games are really 	<ol style="list-style-type: none"> 1. I like playing 2. This game is 3. Look at 4. My game 5. Computer games are 	<ol style="list-style-type: none"> 1. I like 2. This game 3. Look 4. My 5. Computer games 	<ol style="list-style-type: none"> 1. I 2. This 3. 4. 5. Computer 	All scripts are fully removed
Lunch	<ol style="list-style-type: none"> 1. This lunch is so good 2. I love my lunch today 3. My food looks yummy 4. Look what I have today 5. We have awesome lunches 	<ol style="list-style-type: none"> 1. This lunch is so 2. I love my lunch 3. My food looks 4. Look what I have 5. We have awesome 	<ol style="list-style-type: none"> 1. This lunch is 2. I love my 3. My food 4. Look what I 5. We have 	<ol style="list-style-type: none"> 1. This lunch 2. I love 3. My 4. Look what 5. We 	<ol style="list-style-type: none"> 1. This 2. I 3. 4. Look 5. 	All scripts are fully removed
Model building	<ol style="list-style-type: none"> 1. Check out what I'm building 2. Your Legos look cool 3. Look at my model 4. These models are fun 5. We have awesome Legos 	<ol style="list-style-type: none"> 1. Check out what I'm 2. Your Legos look 3. Look at my 4. These models are 5. We have awesome 	<ol style="list-style-type: none"> 1. Check out what 2. Your Legos 3. Look at 4. These models 5. We have 	<ol style="list-style-type: none"> 1. Check out 2. Your 3. Look 4. These 5. We 	<ol style="list-style-type: none"> 1. Check 2. 3. 4. 5. 	All scripts are fully removed

Table 4. *Scripts and script-fading steps for Aiden across each of the activities*

Aiden	Scripts	Fading Step 1	Fading Step 2	Fading Step 3	Fading Step 4	Fading Step 5
Laptop	<ol style="list-style-type: none"> 1. I love playing on computers 2. Computer games are so fun 3. This game is awesome 4. Look at what I'm playing 5. Check out this game 	<ol style="list-style-type: none"> 1. I love playing on 2. Computer games are so 3. This game is 4. Look at what I'm 5. Check out this 	<ol style="list-style-type: none"> 1. I love playing 2. Computer games are 3. This game 4. Look at what 5. Check out 	<ol style="list-style-type: none"> 1. I love 2. Computer games 3. This 4. Look at 5. Check 	<ol style="list-style-type: none"> 1. I 2. Computer 3. 4. Look 5. 	All scripts are fully removed
Model building	<ol style="list-style-type: none"> 1. I love building these models 2. Watch what I'm building 3. Look at my model 4. Legos are so much fun 5. Our Legos are cool 	<ol style="list-style-type: none"> 1. I love building these 2. Watch what I'm 3. Look at my 4. Legos are so much 5. Our Legos are 	<ol style="list-style-type: none"> 1. I love building 2. Watch what 3. Look at 4. Legos are so 5. Our Legos 	<ol style="list-style-type: none"> 1. I love 2. Watch 3. Look 4. Legos are 5. Our 	<ol style="list-style-type: none"> 1. I 2. 3. 4. Legos 5. 	All scripts are fully removed
Lunch	<ol style="list-style-type: none"> 1. I'm so hungry today 2. This lunch is awesome 3. My food tastes great 4. Look what I have today 5. That food looks really good 	<ol style="list-style-type: none"> 1. I 'm so hungry 2. This lunch is 3. My food tastes 4. Look what I have 5. That food looks really 	<ol style="list-style-type: none"> 1. I'm so 2. This lunch 3. My food 4. Look what I 5. That food looks 	<ol style="list-style-type: none"> 1. I'm 2. This 3. My 4. Look what 5. That food 	<ol style="list-style-type: none"> 1. 2. 3. 4. Look 5. That 	All scripts are fully removed

Table 5. Percentages of interobserver agreement obtained on types of initiations emitted by Ollie across each activity and experimental condition.

Type of Initiation	Experimental Condition					
	<u>Baseline</u>			<u>Training</u>		
	Range of scores	Mean	% sessions with IOA	Range of scores	Mean	% sessions with IOA
Scripted						
Laptop	N/A	N/A	N/A	86-100	99	38
Model building	N/A	N/A	N/A	75-100	97	33
Lunch	N/A	N/A	N/A	90-100	97	35
Unscripted						
Laptop	N/A	100	57	50-100	80	38
Model building	N/A	100	40	67-100	86	33
Lunch	N/A	100	35	54-100	89	35
Generalization probe stimuli in trained school setting with peers						
Laptop	N/A	100	50	74-100	90	36
Model building	N/A	100	41	80-100	86	33
Lunch	N/A	100	52	93-100	97	40
Untrained home setting with sibling						
Laptop	N/A	100	40	77-100	88	38
Model building	N/A	100	50	71-100	86	56
Lunch	50-100	93	50	88-100	97	100

Note. Interobserver agreement data were not obtained for scripted initiations in the baseline condition or across the generalization probe stimuli and the untrained setting because scripts were not present and only unscripted initiations could be observed.

Table 6. Percentages of interobserver agreement obtained on types of initiations emitted by Ian across each activity and experimental condition.

Type of Initiation	Experimental Condition					
	<u>Baseline</u>			<u>Training</u>		
	Range of scores	Mean	% sessions with IOA	Range of scores	Mean	% sessions with IOA
Scripted						
Laptop	N/A	N/A	N/A	86-100	99	33
Model building	N/A	N/A	N/A	70-100	87	36
Lunch	N/A	N/A	N/A	75-100	95	34
Unscripted						
Laptop	83-100	98	53	78-100	90	33
Model building	91-100	99	34	77-100	87	36
Lunch	83-100	99	34	79-100	91	34
Generalization probe stimuli in trained school setting with peers						
Laptop	N/A	100	46	70-100	85	34
Model building	90-100	99	38	70-100	80	50
Lunch	0-100	91	69	73-100	88	46
Untrained home setting with sibling						
Laptop	N/A	100	50	73-100	81	33
Model building	N/A	100	35	81-87	84	67
Lunch	N/A	100	38	78-88	83	38

Note. Interobserver agreement data were not obtained for scripted initiations in the baseline condition or across the generalization probe stimuli and the untrained setting because scripts were not present and only unscripted initiations could be observed.

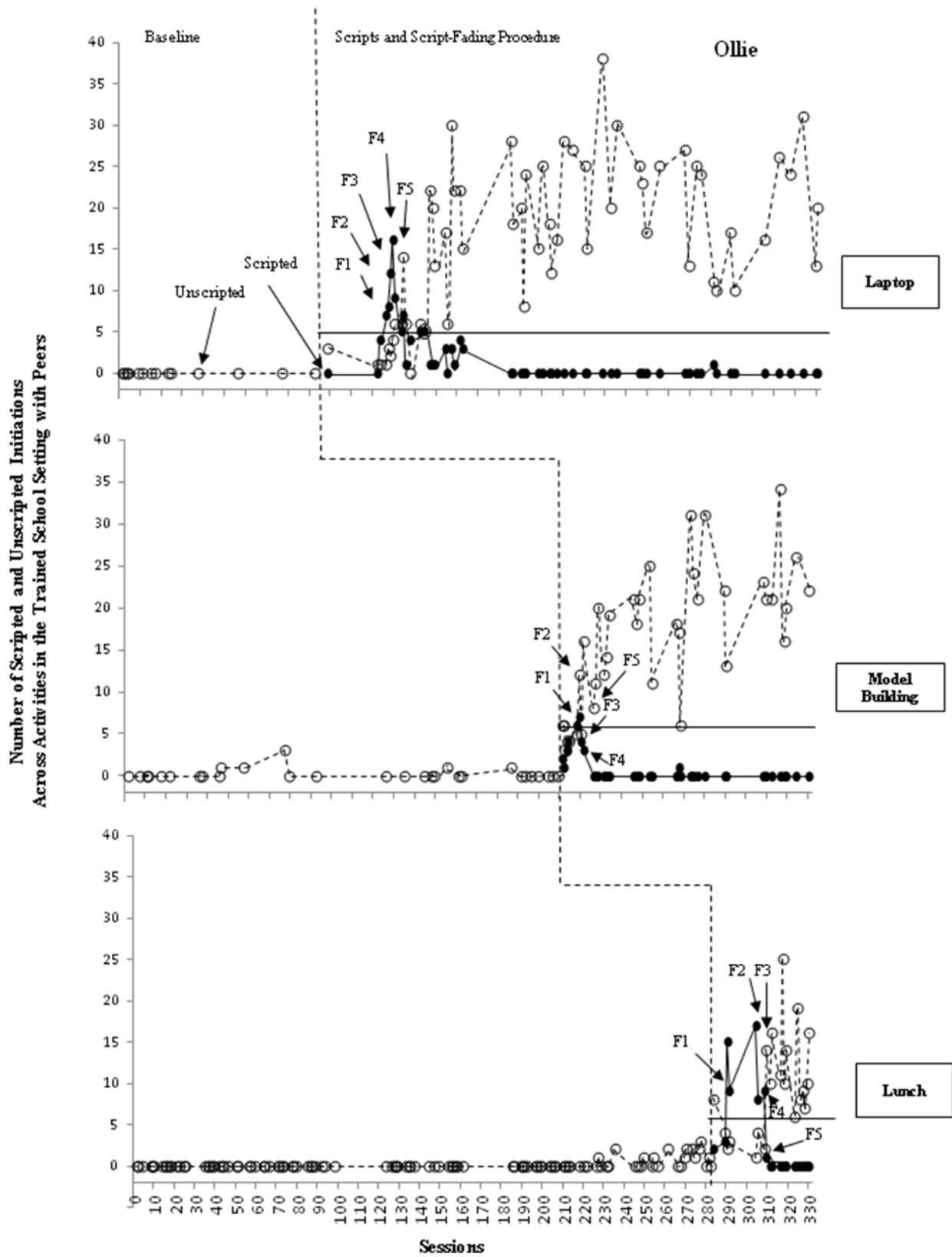
Table 7. Percentages of interobserver agreement obtained on types of initiations emitted by Aiden across each activity and experimental condition.

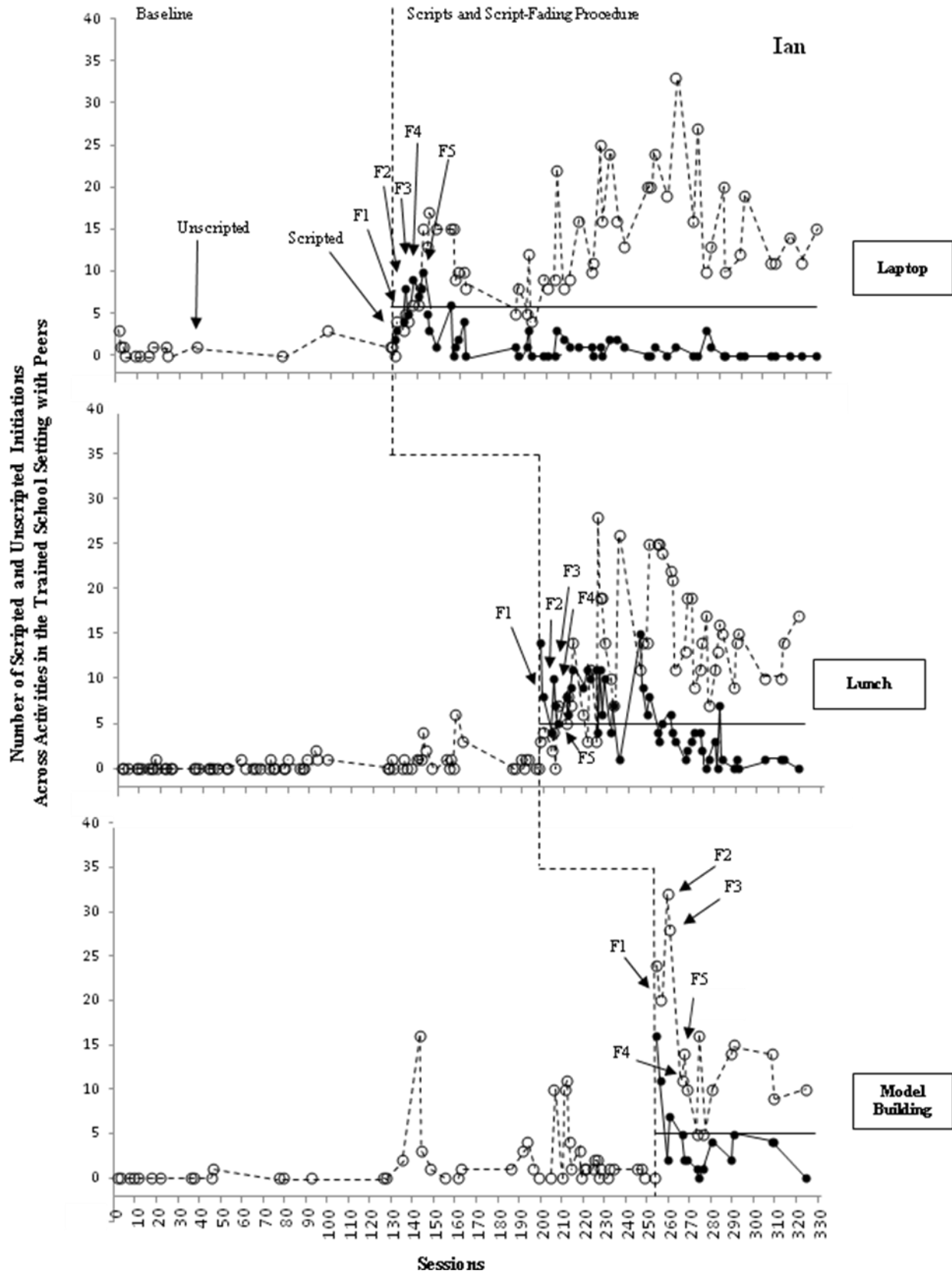
Type of Initiation	Experimental Condition					
	<u>Baseline</u>			<u>Training</u>		
	Range of scores	Mean	% sessions with IOA	Range of scores	Mean	% sessions with IOA
Scripted						
Laptop	N/A	N/A	N/A	88-100	99	35
Model building	N/A	N/A	N/A	N/A	100	34
Lunch	N/A	N/A	N/A	83-100	95	36
Unscripted						
Laptop	93-100	89	42	80-100	94	35
Model building	N/A	100	34	76-100	86	34
Lunch	50-100	98	34	76-100	87	36
Generalization probe stimuli in trained school setting with peers						
Laptop	91-100	99	46	75-100	88	36
Model building	N/A	100	39	75-100	91	38
Lunch	N/A	100	57	83-100	91	43
Untrained home setting with sibling						
Laptop	N/A	100	83	86-100	91	38
Model building	92-100	99	67	80-89	87	43
Lunch	71-100	96	47	88-100	94	50

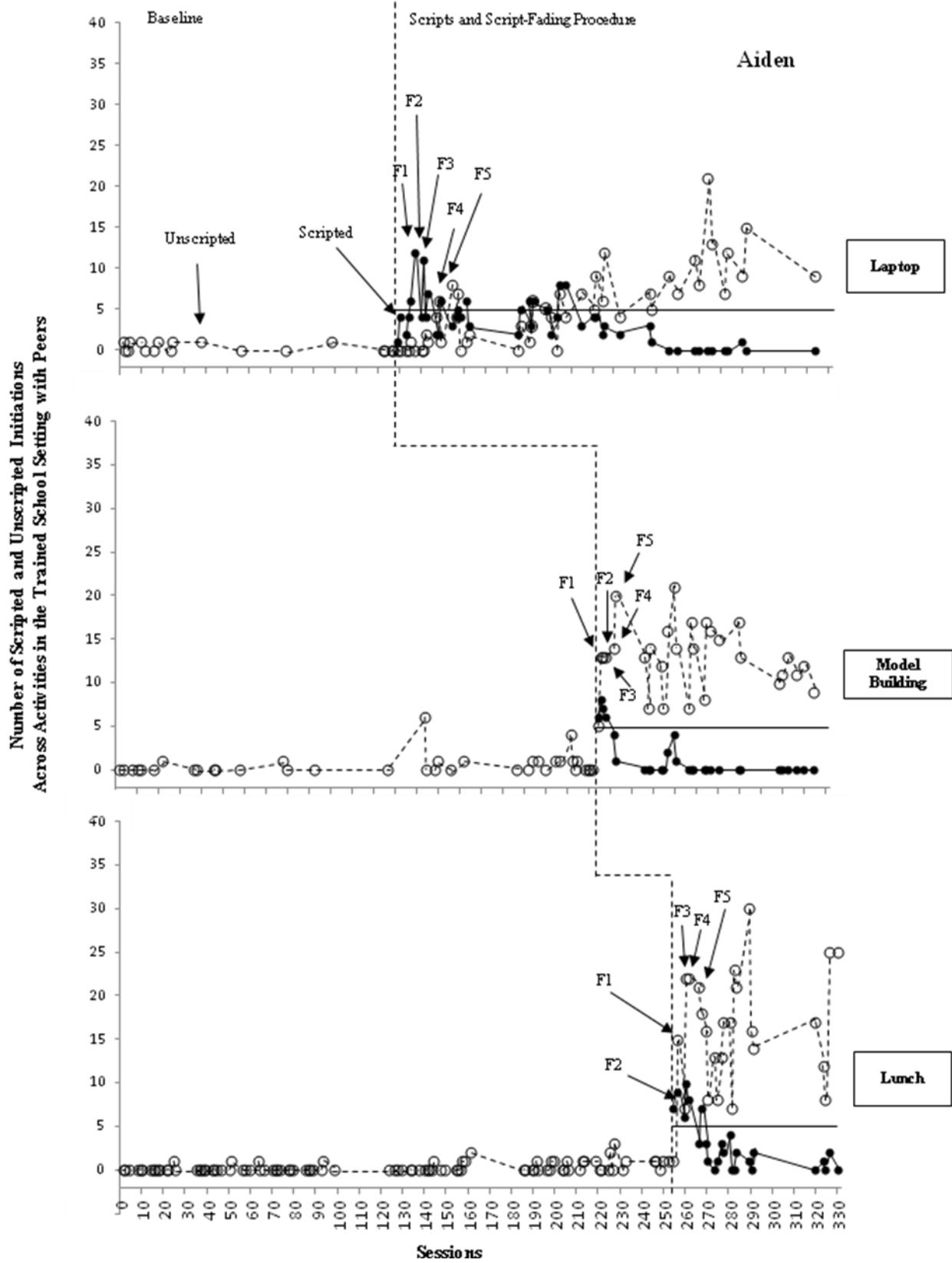
Note. Interobserver agreement data were not obtained for scripted initiations in the baseline condition or across the generalization probe stimuli and the untrained setting because scripts were not present and only unscripted initiations could be observed.

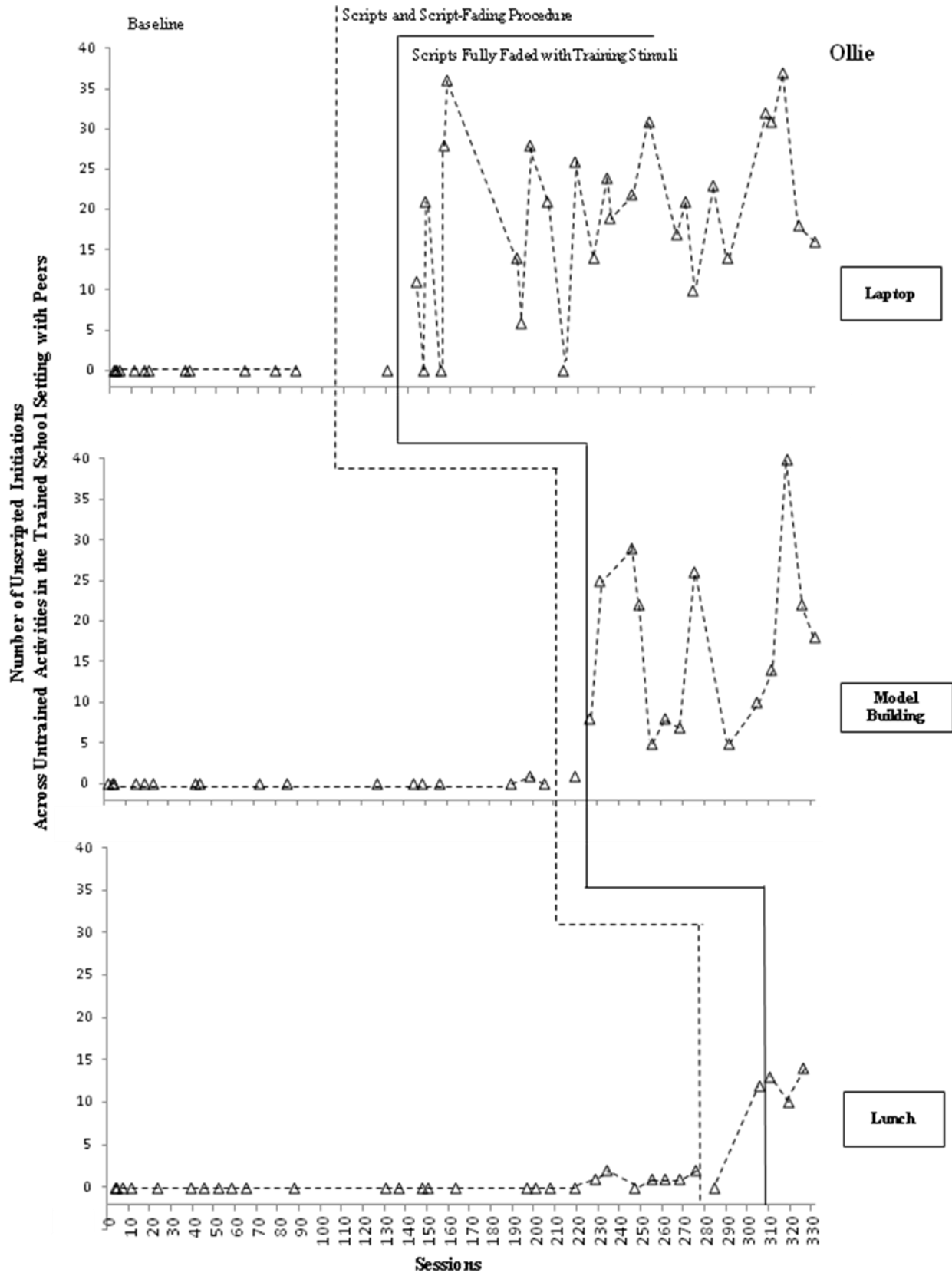
Table 9. *Percentage of video clips accurately scored as obtained during baseline or after training at school, across experimental conditions for each participant in the untrained home setting with a sibling.*

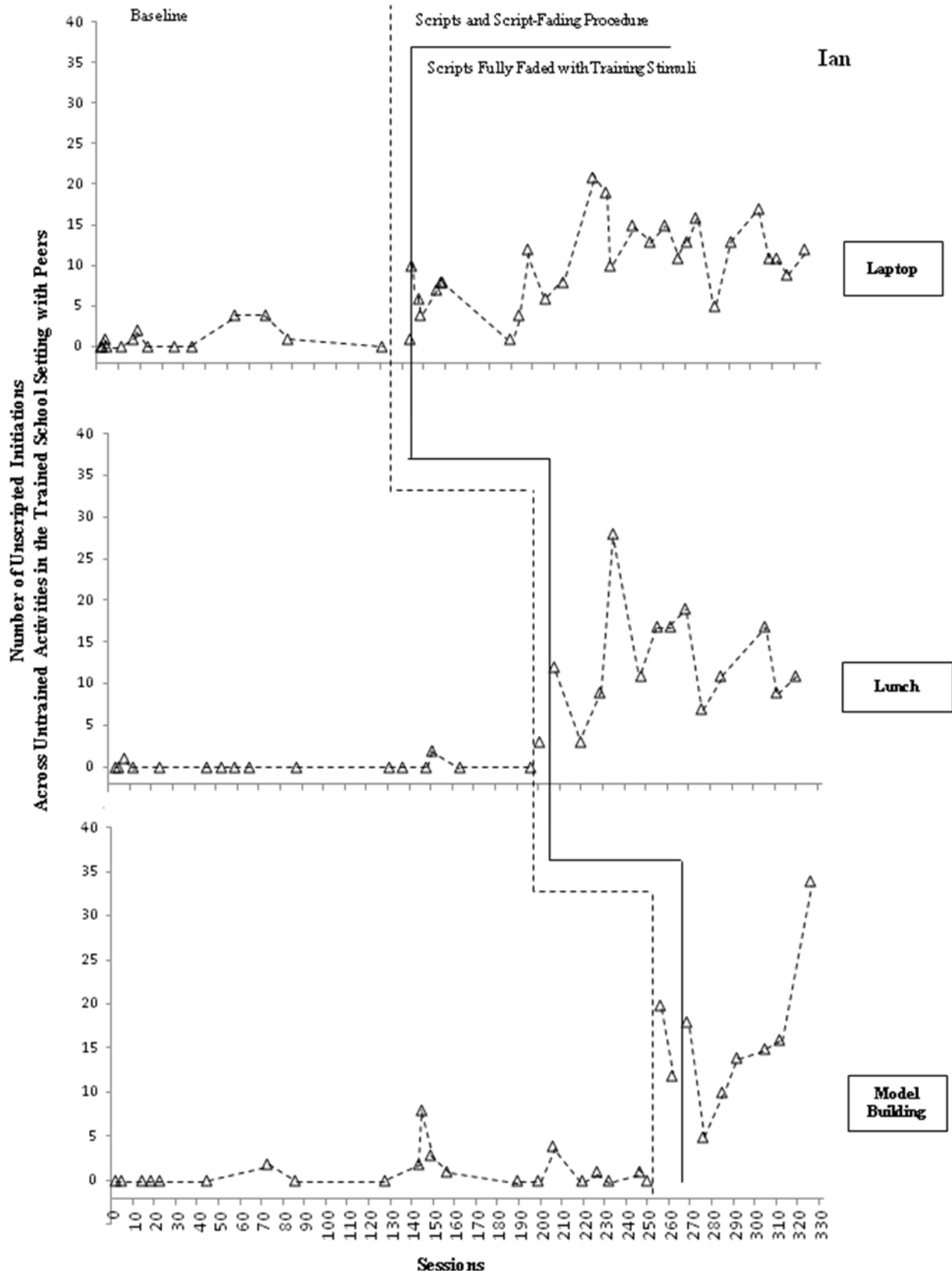
	Population sampled			
	<u>Trained in applied behavior analysis</u>		<u>Not trained in applied behavior analysis</u>	
	Baseline	After script fading in trained school setting	Baseline	After script fading in trained school setting
Ollie				
Laptop	0	100	0	100
Model building	0	100	0	90
Lunch	0	100	10	100
Ian				
Laptop	10	100	80	100
Model building	0	100	10	80
Lunch	0	100	20	100
Aiden				
Laptop	0	100	10	100
Model building	0	100	10	100
Lunch	0	100	30	100

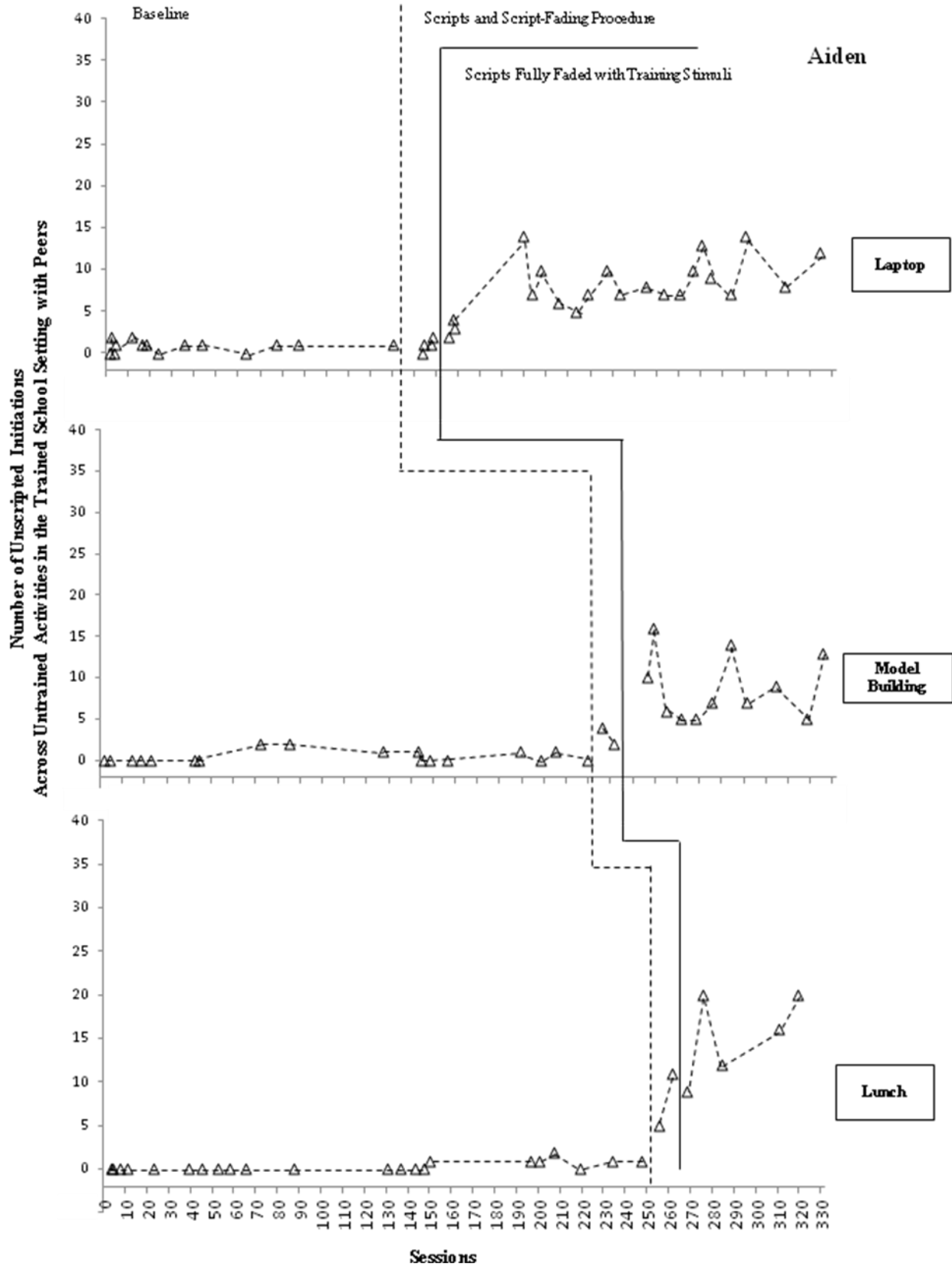


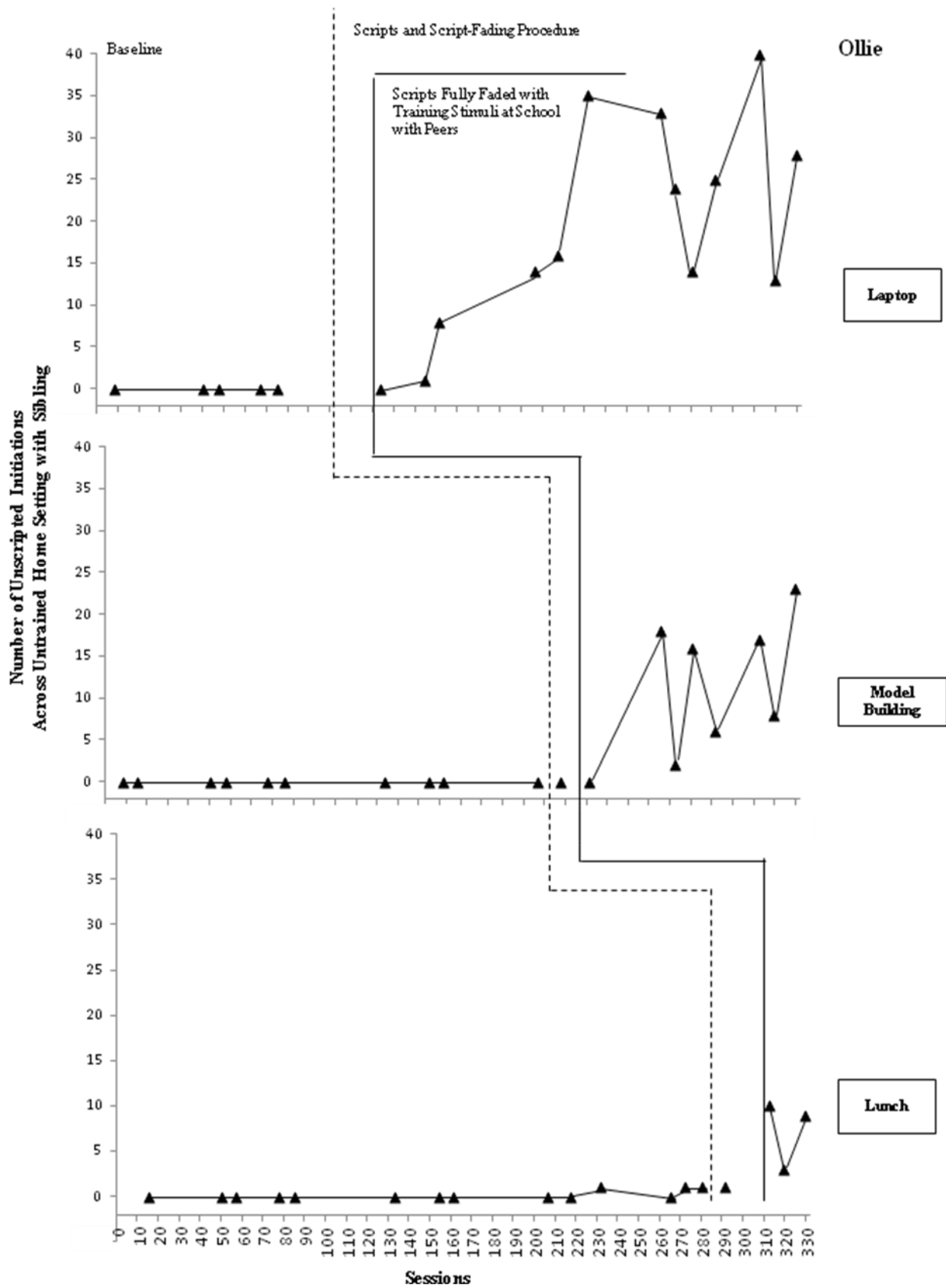


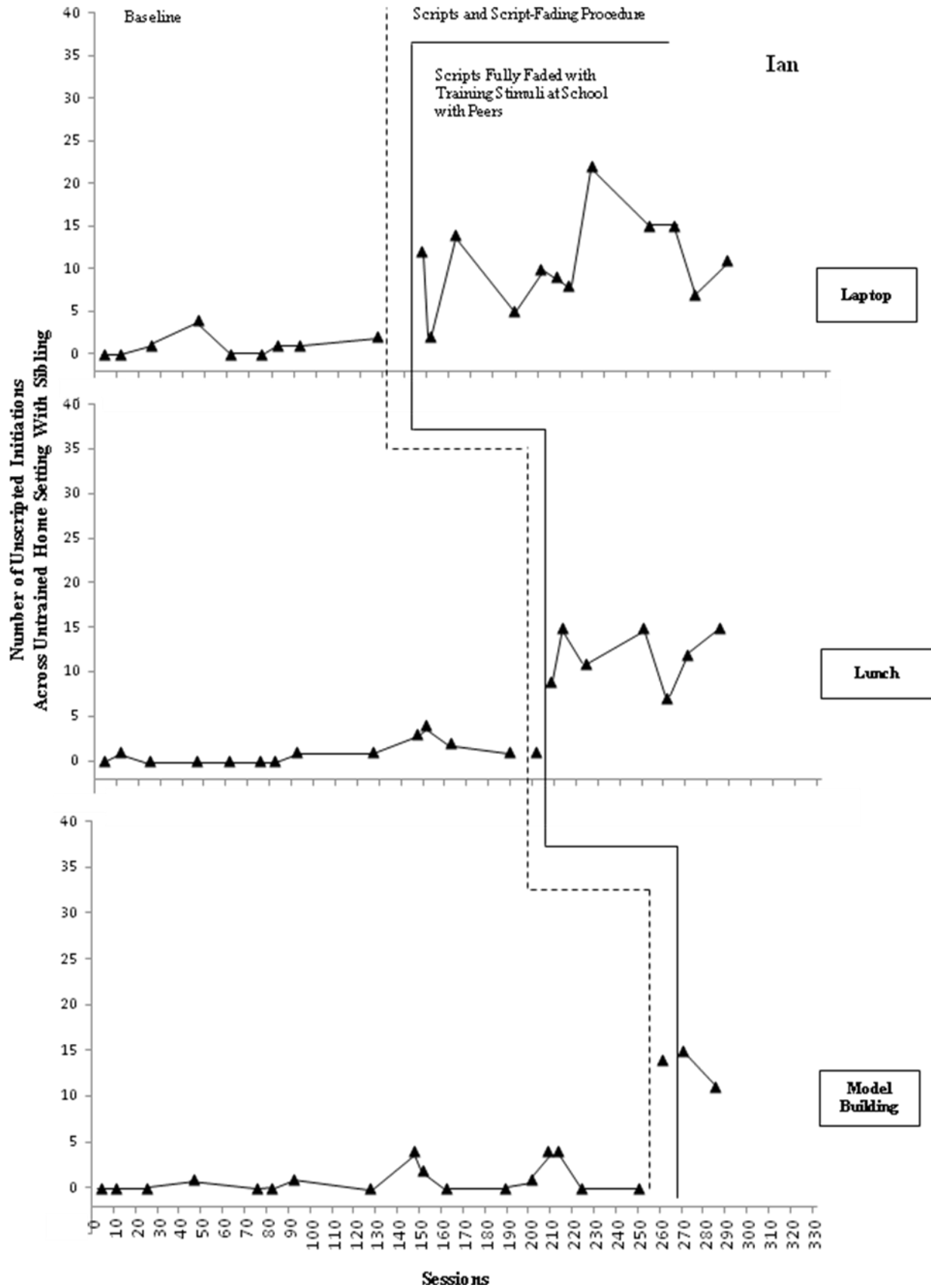


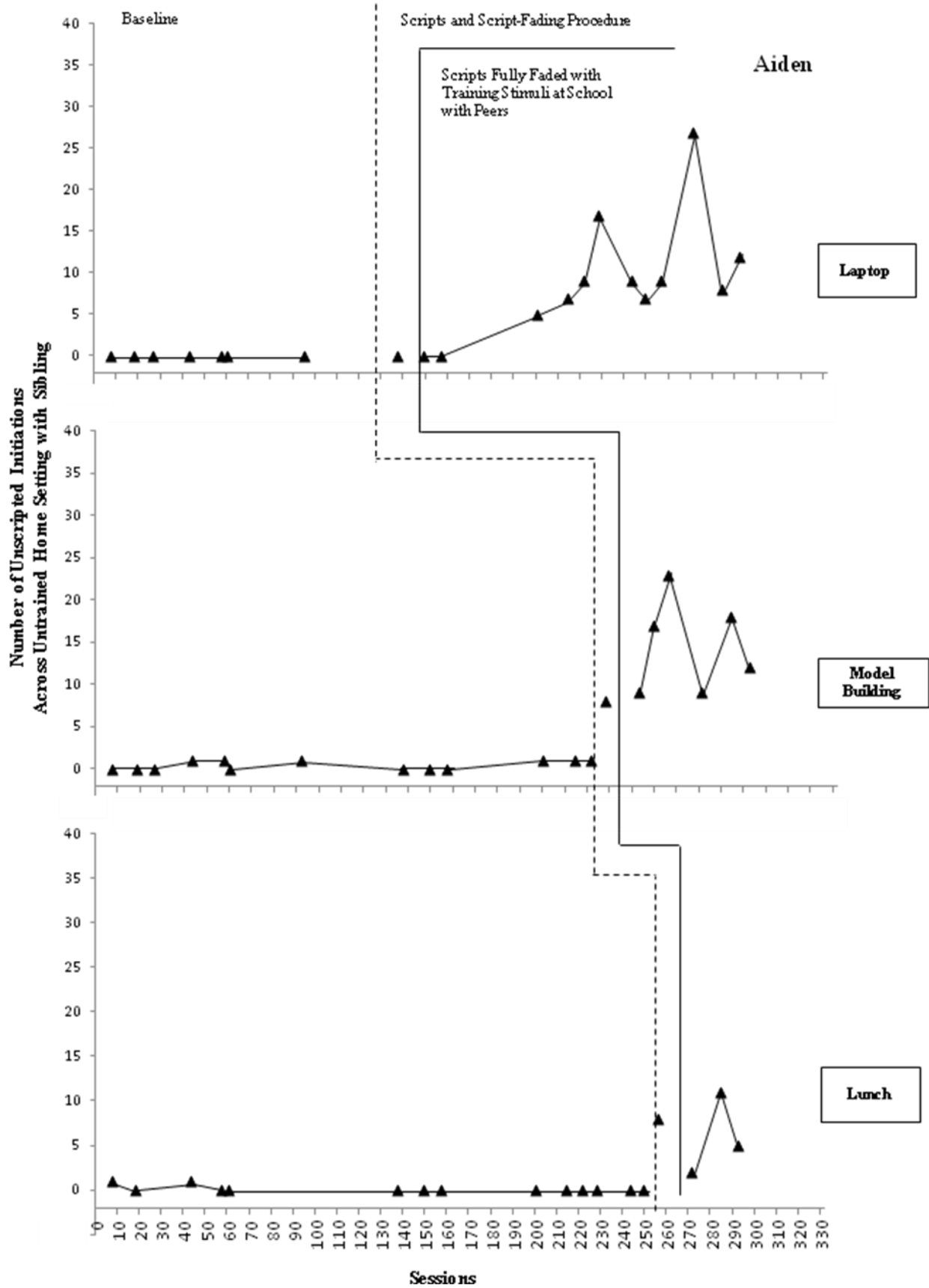


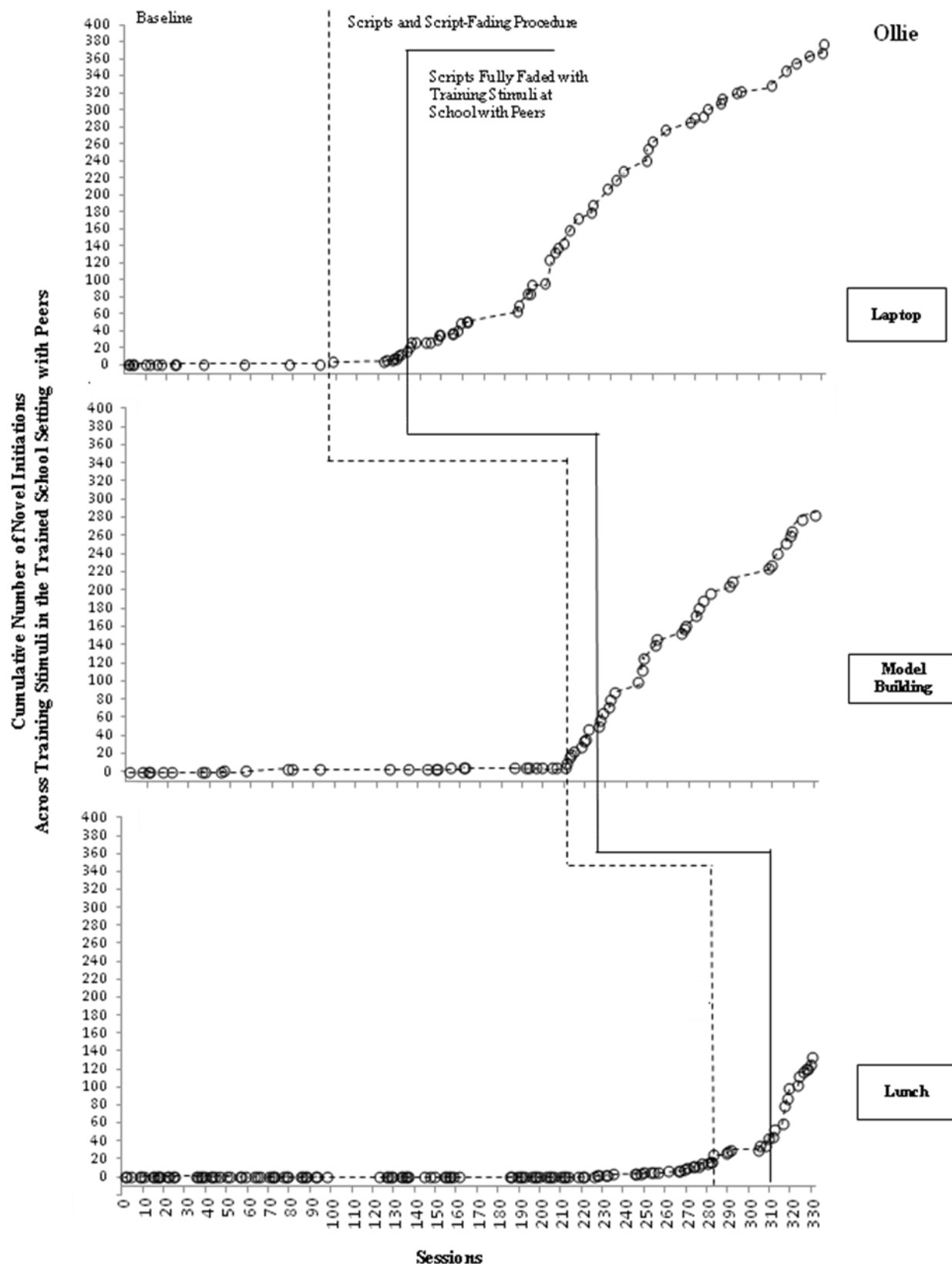


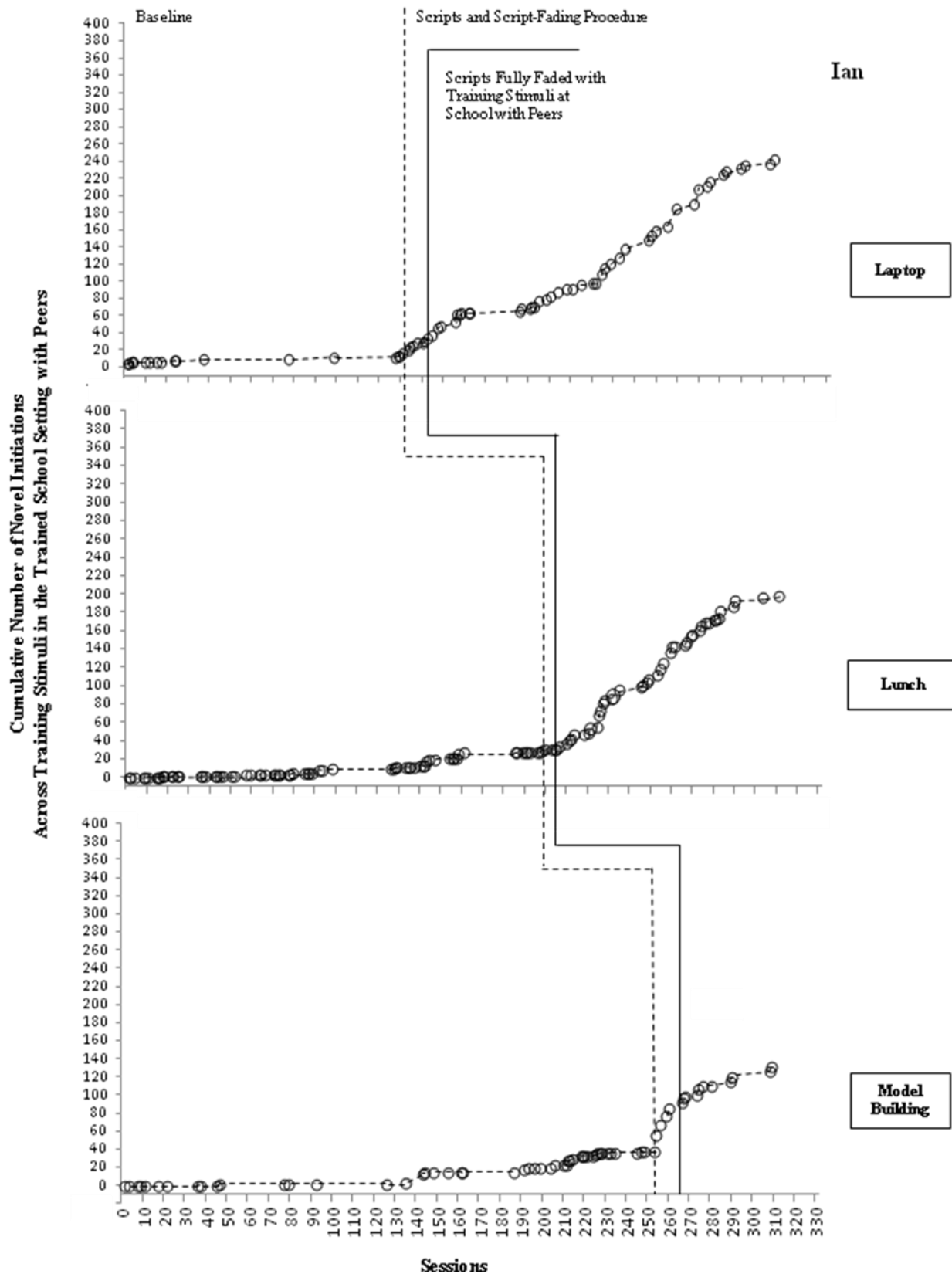


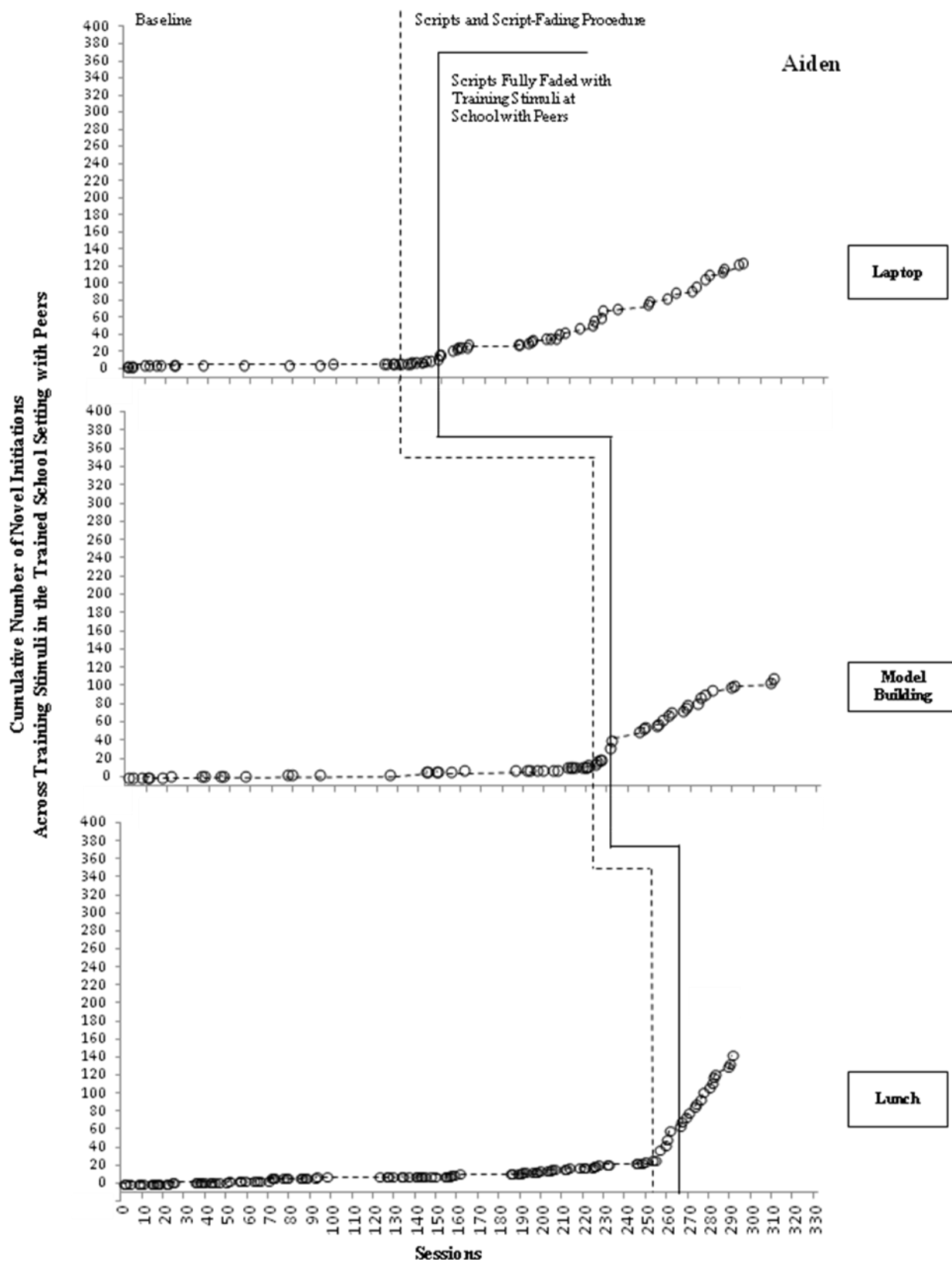


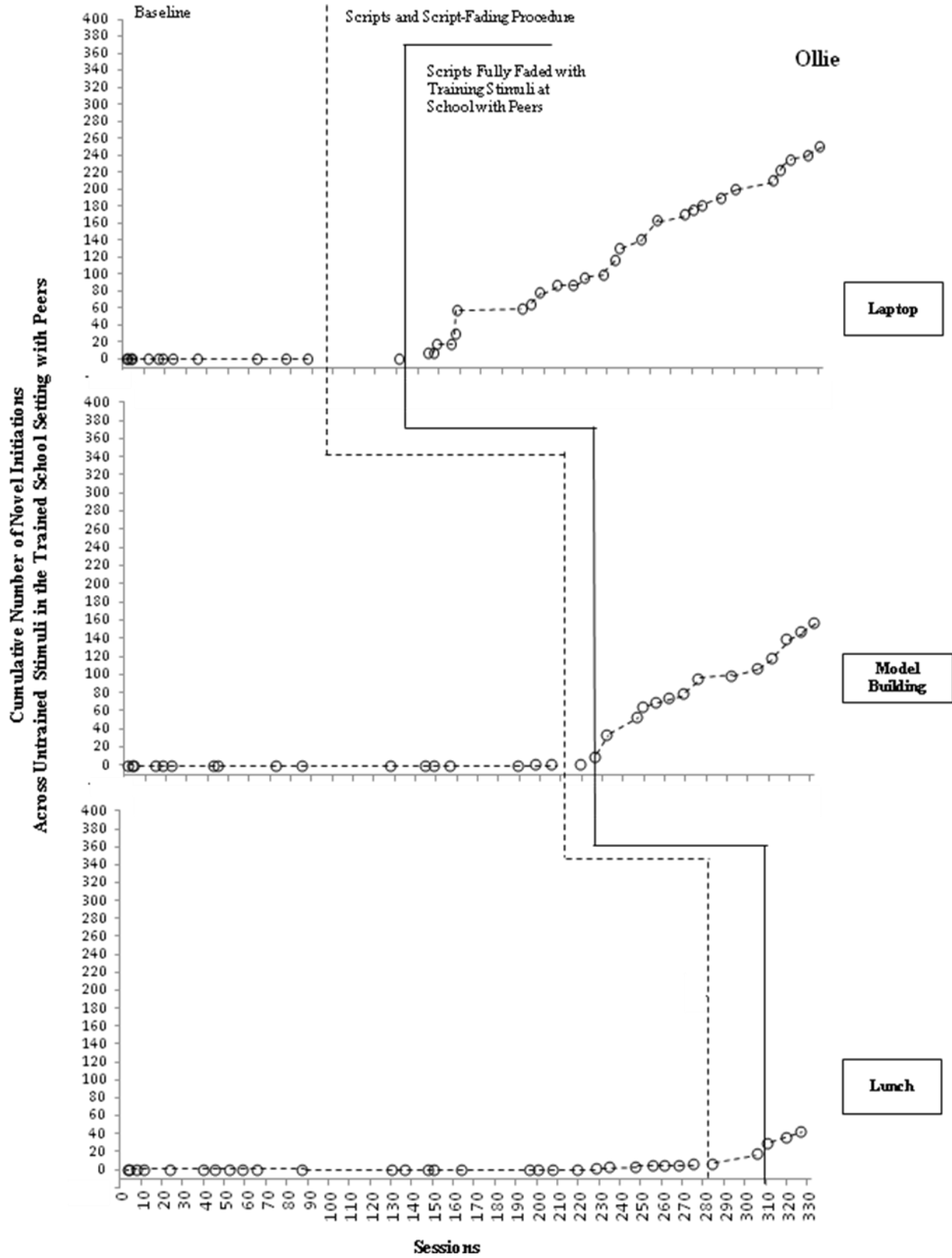


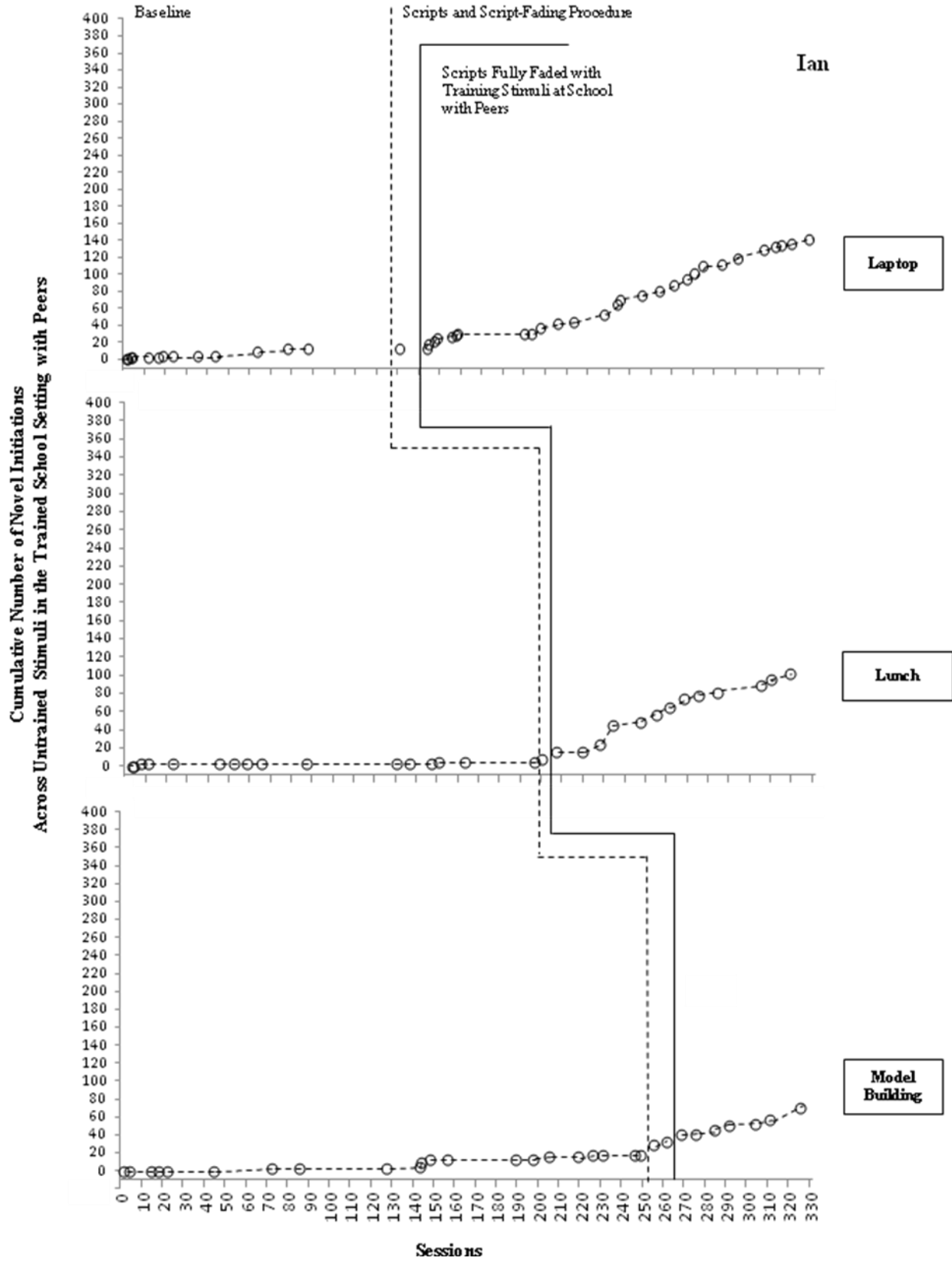


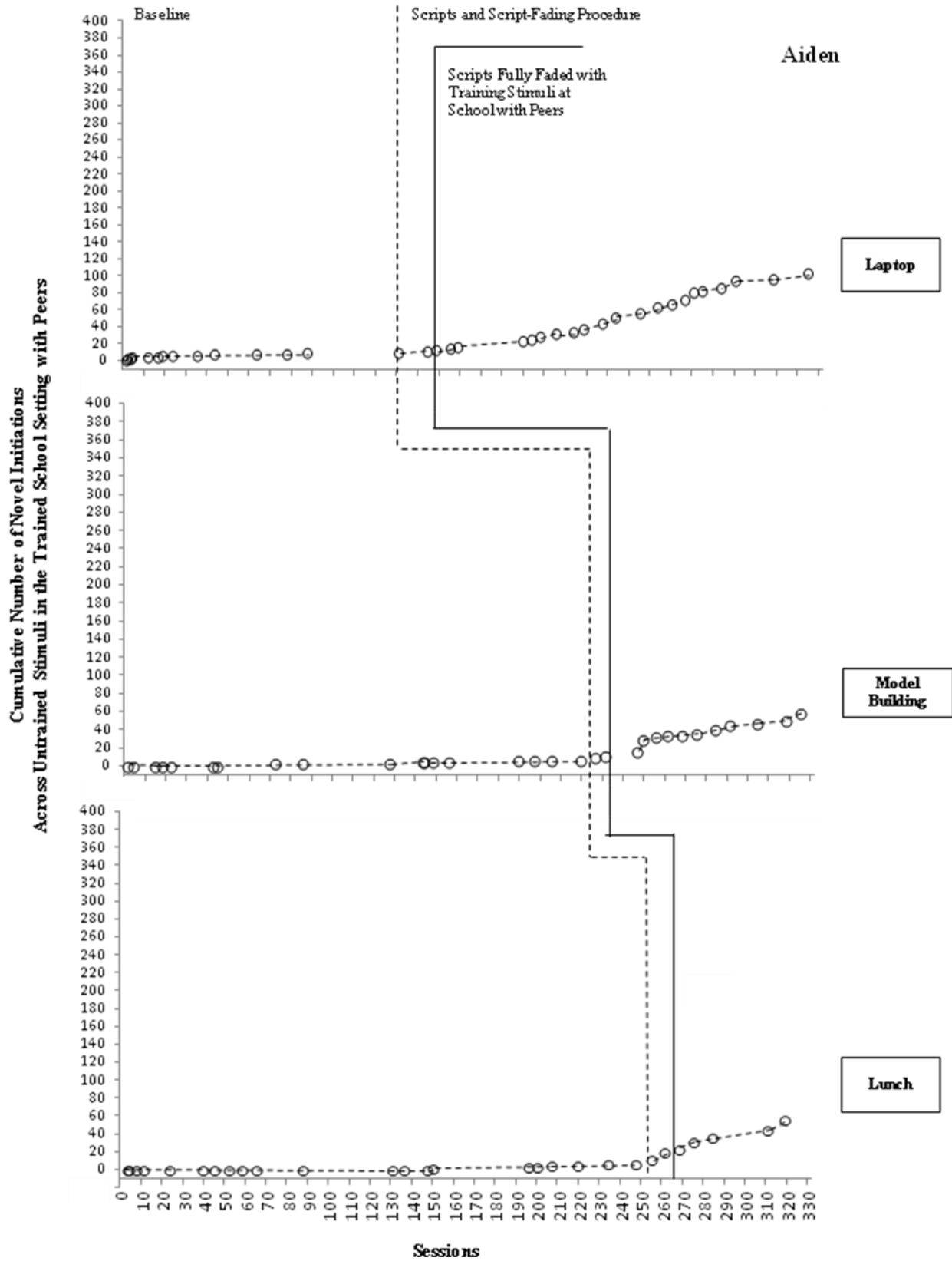


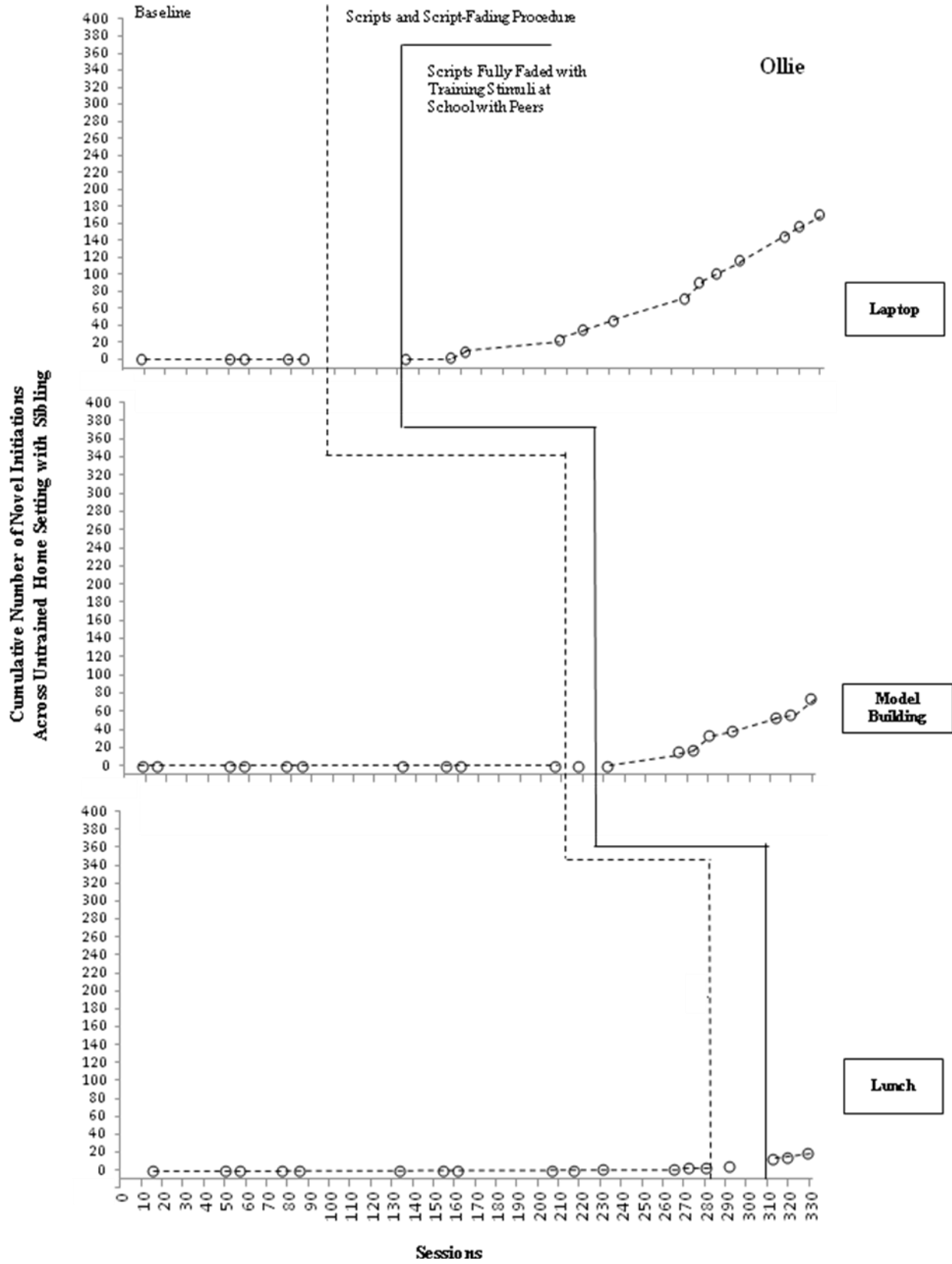


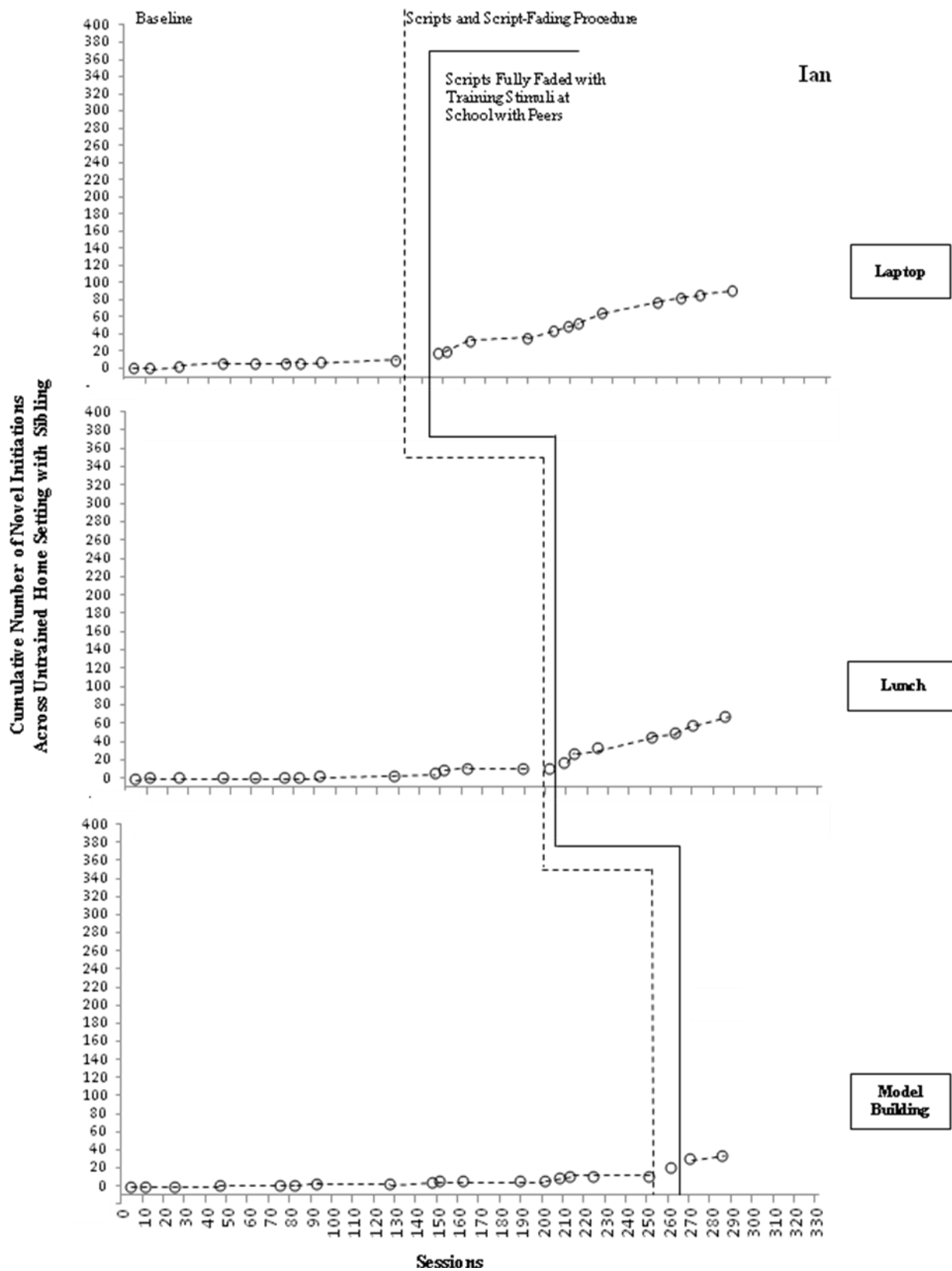


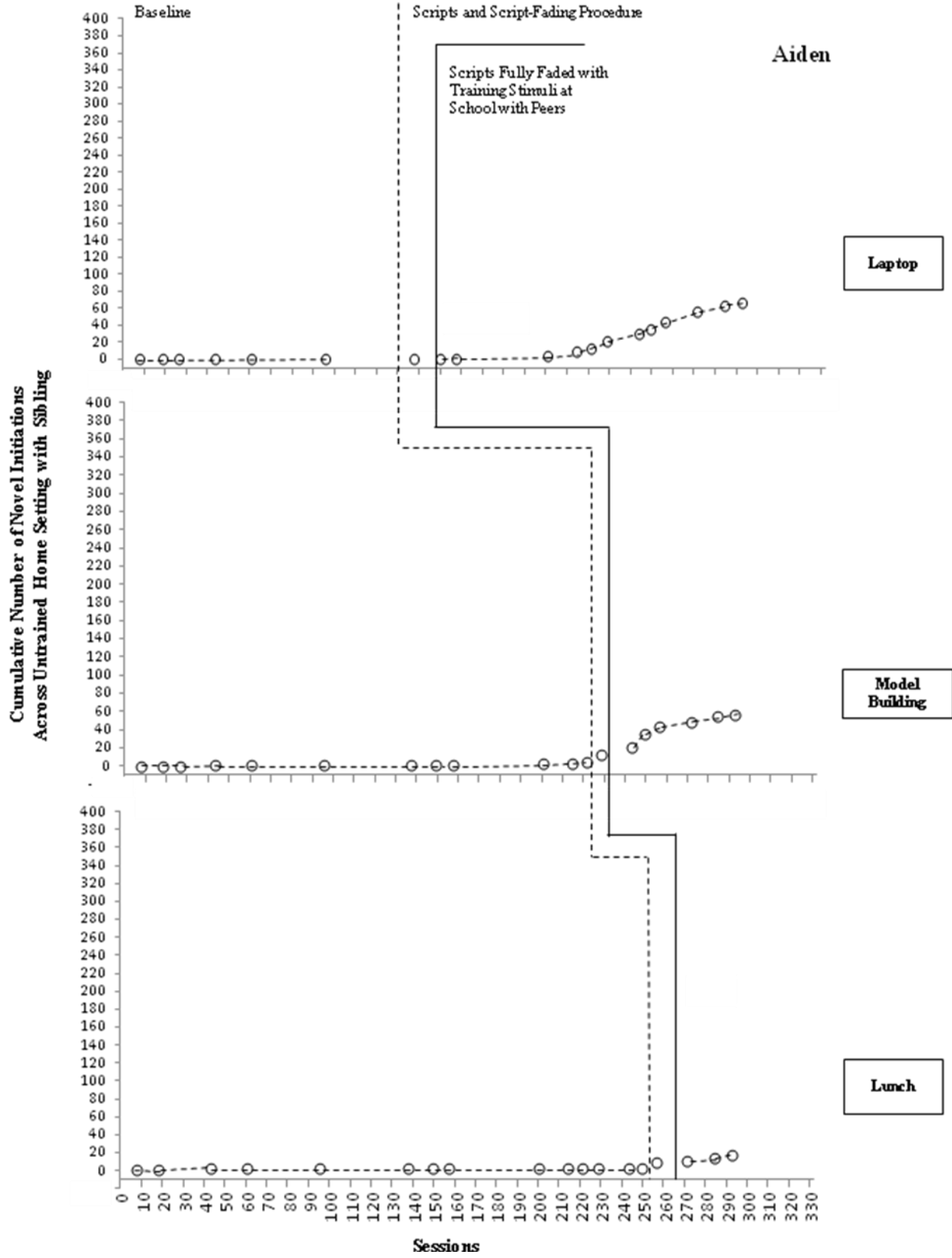












Appendix

Verbatim Novel Initiations

Ollie – Novel Initiations**Laptop**

Scripts: Computer games are fun

I love this game

This game is cool

Check out what I'm playing

Playing on computers is awesome

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	N/A	0
3/7	N/A	0
3/8	N/A	0
3/9	N/A	0
3/14	N/A	0
3/16	N/A	0
3/20	N/A	0
3/22	N/A	0
3/28	N/A	0
3/29	N/A	0
4/11	N/A	0
4/30	N/A	0
5/21	N/A	0
6/5	N/A	0
Teaching		
6/11	1. This is fun 2. Oh that's good 3. You get computer	3
7/5	4. I'm playing computer	4
7/6	5. Look at me, I'm black and white	5
7/9	N/A	5
7/10	6. This game is fun 7. Playing on computer is fun	7
7/11	N/A	7
7/12	8. Computer games are very fun 9. I love computer games 10. This game is very cool	10
7/13	11. Hey look, that's a picture of me 12. Playing on computers is neat	12
7/16	13. We like this game	16

	14. We love this game 15. This game is so nice 16. This game is really cool	
7/17	17. Computer games are awesome 18. Playing games is so fun 19. I like this game, it's awesome 20. This game is neat 21. This game is so awesome	21
7/18	22. This is a really fun game of Elmo 23. Check it out, that's Elmo's horse 24. Check it out, that's Elmo's bar 25. Check it out, that's Elmo's train 26. Check it out, that's Elmo's computer	26
7/20	N/A	26
7/25	27. The computer's green	27
7/27	N/A	27
7/30	28. Look at this game 29. This game is very excellent	29
7/31	30. Hey, I got 10, 20, 30 31. Check it out, it's a penguin 32. Check it out, it's a number 8 33. Check it out, it's a red 8 34. Look at this game, it's very neat 35. Check it out, this is me when I was 2	35
8/1	N/A	35
8/6	36. It's nice to play computer	36
8/7	N/A	37
8/9	37. I like your new computer game 38. Check it out, I like this game 39. Check it out, it's Big Ben 40. Those are very cool Mike and Ike's	40
8/10	41. This is a very fun Sesame Street game 42. That's a clock that tells time 43. Uh oh, Elmo has to go to the doctor, he doesn't want to leave 44. I heard a truck go by 45. Do you like his train? 46. That's his toy train 47. Elmo is in room 26 at the doctor 48. It's the Elmo loves you song	48
8/13	49. Check it out, it's 550 50. Hey I like those buildings	50
8/14	N/A	50
9/6	51. Ian, a SpongeBob game 52. Wow, a new game 53. This is a very fun game of SpongeBob 54. I really like your new game	63

	<p>55. Ian, nice one 56. You're doing great 57. Nice work 58. Very good work 59. You're doing an excellent job 60. This game is very wonderful 61. Wow, terrific work 62. This game is fantastic 63. The SpongeBob game is excellent</p>	
9/7	<p>64. Fantastic work 65. You're doing very good 66. Wow, you're doing very nice 67. That PBS game is excellent 68. Those are very cool instruments 69. That's a drum 70. Look, it's lightning</p>	70
9/11	<p>71. I got 4 pictures 72. I got 5 pictures 73. Not I got 6 pictures 74. I got 8 pictures 75. You're doing SpongeBob 76. I got 10 pictures 77. I got only 11 pictures 78. Now I got only 12 pictures 79. I got number 13 80. I got 14, that's very nice 81. Now I have 16 photos 82. I love Patrick 83. I got 17 photos now 84. I love that SpongeBob and Patrick game</p>	84
9/12	N/A	84
9/13	<p>85. That's a very good game 86. Now we're going to play a different game 87. It's a new SpongeBob game 88. You're a good computer player 89. Fantastic job 90. It's not working 91. What game are you playing on the computer? 92. Check it out, a very fun game 93. You're new SpongeBob game is very fun 94. I hear a helicopter</p>	94
9/19	<p>95. Good job on your game 96. Ian, big and little bubbles</p>	96
9/21	<p>97. Look, it's sleeptime Elmo 98. Elmo's ready for a nap 99. Look, it's Vicky's</p>	123

	<p>100. Look, it's treasure hunt 101. Elmo's playing guitar 102. I'll come back to the park on Tuesday 103. It's pbskids that I'm playing 104. Elmo's worried about school 105. There's only 6 more toys left 106. There's only 5 more toys 107. There's only 4 more toys 108. Elmo's playing with the fire truck 109. Elmo's mom is taking him home 110. Elmo's going back to school 111. Elmo will come back tomorrow 112. Elmo's mommy opened the door 113. It's Super Grover 114. Elmo's waiting for the doctor 115. The 10 is coming up 116. Look, it's numbers 117. Look, number 12 is missing 118. That's a very good man 119. Look, it's a number 2 120. Cookie Monster's eating a 2 121. That's a very good video 122. I'm playing pbskids in the classroom 123. Elmo's gotta get dressed</p>	
9/24	<p>124. You got 11 125. It's the stop sign 126. It's a mystery 127. It's broken 128. Your daddy is coming soon 129. You're playing PBS 130. Sue came through the door 131. Your game is working 132. Look, a tunnel</p>	132
9/25	<p>133. I know you love this game 134. What are you doing? 135. Look, SpongeBob is taking a picture 136. You're good at this 137. You are doing great, I can't believe it 138. You have a Mario shirt</p>	138
9/28	<p>139. You are on round 4 140. What round are you? 141. This computer has 8 games 142. Sorry, we're out of TV's 143. Look, Jimmy Neutron</p>	143
10/1	<p>144. Well done 145. You're doing fantastic</p>	158

	<p>146. What new game are you playing? 147. What's your favorite game to play on the computer? 148. Look, pictures of x-rays 149. Great job 150. You're doing well 151. I'm red 152. You're doing Super Mario 153. Way to go 154. I heard a bus go by 155. I can't wait to go home 156. I'm red, pink, and blue 157. That's amazing 158. The computer game is working</p>	
10/5	<p>159. Look at all those pictures 160. I did it, I took the picture 161. You're very good at computer 162. We're going to leave in a few minutes for the movies 163. You lost Super Mario 164. It's a good thing you know about SpongeBob 165. What are you playing next? 166. It's almost time for movies 167. Are you getting 7Up? 168. Are we taking the blue van? 169. It's a good thing you know about computers 170. You're doing great with computer 171. You're playing Finding Nemo 172. You're almost done</p>	172
10/11	<p>173. Look, it's a picture of Ian 173. Are you playing SpongeBob? 174. This is a picture of you in high school 175. Did you have fun doing models? 176. I like your picture 177. You're great at computers 178. You're doing computer nicely 179. Check it out, it's a picture</p>	179
10/12	<p>180. You're very great at that 181. What computer are you playing on? 182. It takes a lot of minutes to play on computer 183. You win SpongeBob 184. You're on level 2 185. You love playing computer games 186. Look, it's number 5 and number 2 187. You're doing computer all by yourself</p>	187
10/19	<p>188. We must be going home soon 189. What do you want to do today? 190. When I get home I'm going to tell Mommy I got off the bus</p>	207

	<p>today</p> <p>191. You know what? You're very great at computers</p> <p>192. Your search looks very great</p> <p>193. Did you hear that?</p> <p>194. Your search looks terrific</p> <p>195. Great work</p> <p>196. I'm very proud of you</p> <p>197. Did you hear that baby crying?</p> <p>198. You must be going on the bus soon</p> <p>199. You're going to keep playing your computer game</p> <p>200. Excellent work</p> <p>201. See your computer game, it's very nice</p> <p>202. This is the only game you're playing</p> <p>203. You got all your computer games</p> <p>204. Don't worry, we'll fix it later</p> <p>205. Andy is leaving</p> <p>206. Do you like model building?</p> <p>207. Great job, thanks for helping</p>	
10/23	<p>208. We need your help</p> <p>209. See their blue slide?</p> <p>210. Is Loude gonna pick you up?</p> <p>211. Did your computer have any games?</p> <p>212. You're playing Luigi</p> <p>213. This computer game is very happy</p> <p>214. School is so much fun</p> <p>215. I know how you love your computer games</p> <p>216. It's a bubble with a blue one</p> <p>217. After computer, I'll go home</p>	217
10/26	<p>218. Your computer game looks nice</p> <p>219. That sure is good</p> <p>220. This is a happy computer game, isn't it?</p> <p>221. You're so happy you did computer</p> <p>222. You're playing computer, aren't you?</p> <p>223. Alright, you took the picture</p> <p>224. You're very great at your computer game</p> <p>225. You love your computer game, don't you?</p> <p>226. We're both playing Photobooth</p> <p>227. What can I do for you today?</p> <p>228. Your bus must be here soon</p>	228
11/6	<p>229. No Legos today</p> <p>230. I hope you can play your computer game</p> <p>231. The clock is missing</p> <p>232. Look, it says "Not connected to internet"</p> <p>233. Look, they're at school</p> <p>234. We're going to leave the computer open</p> <p>235. We got new computer games</p>	239

	<p>236. Your computer looks awesome 237. Look, it's Q-ey 238. There's some teeny, tiny, weevils 239. You're great at that game</p>	
11/7	<p>240. Total 160, Ian 241. Looks like the game is over 242. What should we do next? 243. Play computers before you go home 244. No iPads today 245. We should play that sometime today 246. See that red line? 247. Today, we're gonna do computers 248. How are you gonna do that? 249. You got a lot of numbers 250. It's SpongeBob and Squidward 251. It's a lot of things you did on the computer 252. There's four Ollies 253. Do you want to watch?</p>	253
11/9	<p>254. Don't give up 255. You're an alligator 256. You're Luigi from Mario 257. What do you think we're doing? 258. It says, "Time's up" 259. Your computer looks fantastic 260. You got all the things 261. Do you have candy? 262. Your computer is white 263. When I go home, Charlotte will be there</p>	263
11/15	<p>264. I got another one 265. We can't do models today 266. It's the Eiffel Tower 267. Look, it's half a moon 268. I can't wait for popcorn 269. We can do models Tuesday 270. Are you going to do the red truck or the yellow one? 271. Alison moved the clock 272. I have a great idea 273. I heard the door shut 274. Look, there's four pictures 275. Look, there's a little light in your computer 276. It's almost time to go home 277. Look, there's a hallway</p>	277
11/27	<p>278. It's time to play computers 279. Look, it's a captain 280. It's skipping 281. There's a stop clock</p>	285

	282. Who are you? 283. Look at all those different colors 284. It says P2 285. Look, it says this is play space	
11/29	286. We'll do iPads after computers 287. Look at the numbers go up 288. I see the numbers 289. Look, it's a Jimmy Neutron toy 290. I love how you're playing your game	290
12/3	291. Does the Eiffel Tower look like the letter A? 292. It's nighttime in the picture	292
12/5	293. Your computer has keys on it 294. There's a green light on the computer 295. Ian has a loose tooth 296. Do you like this picture? 297. How's your computer game? 298. Your computer says August 1 st 299. I almost got PBS kids 300. Look, it says December 1 st	300
12/11	301. Look, it says e-cards 302. Look, it's Maya 303. Look, yellow letters 304. Look, Elmo's going to the doctor 305. Look, it's a star 306. Look, it's loading 307. Look, it's a clock	307
12/12	308. I like 10 309. Are you playing Frankenweenie? 310. Great job, you're playing Frankenweenie 311. Hey look, it's Frankenweenie 312. I need two more checks for PBS kids 313. Oh boy, you're computer has Frankenweenie on it	313
12/19	314. It's almost to 100 315. You like those letters? 316. Oh look, computers are so much fun 317. We're almost done with computers 318. I think we're almost finished with computers 319. You're jumping	319
12/21	320. What number is this? 321. Look at all those cool notes	321
1/4/13	322. Someone is crying 323. This is a picture of you when you were funny face 324. This is a picture of you at your school 325. This is a picture of Aiden 326. This is a picture of Ian in a yellow shirt 327. What's this a picture of?	329

	328. Is this a picture of you? 329. I'm a gorilla	
1/11	330. Oh look, Photobooth 331. Look, there's Flo's V8 Café 332. Look, 46, 45, 44 333. It's not Lizzy's curio shop 334. It's not Sarg's, it's Flo's 335. This is not Mater's junkyard 336. This is not La Casa del Tires 337. This is not Filmore's 338. They don't have Flo's café anymore 339. Cars is on Disneygo.com 340. See those blue numbers? 341. Look, it's Lightning McQueen 342. I got 10, I got 11, I got 15 343. Oh look, I got 13 344. I got 9 345. I got 35 346. Almost to 50	346
1/16	347. I got 14 348. Doesn't that sound like a horse? 349. It's starting now 350. What building is it? 351. Who brought Flo's V8 café? 352. What do you like about your new Photobooth game? 353. Look, Flo is coming up 354. Where's the number 8?	354
1/22	355. The x-ray's inside my body 356. I like your computer game 357. That was some sneeze 358. You're doing such a good job on the computer 359. Are you playing Pizza Perfect? 360. What other games are you playing? 361. That says Photobooth 362. Do you like computers? 363. The computer is off	363
1/28	364. Do you know what it is? 365. Good job, it's Luigi 366. That was the wheel	366
1/29	367. It says, "Elmo's first day at school" 368. Elmo needs some shoes 369. I see a green and a purple 370. Look, it's the X 371. Did you do a good job playing computer? 372. Elmo's going home 373. What a good game you're playing	376

374. We're finished with Murray Monster 375. Elmo's at the hospital 376. It's Prairie Dawn	
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Model Building

Scripts: Your model looks cool

Let's build together

Look at what I'm building

This model is tough

These Legos are awesome

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	N/A	0
3/12	N/A	0
3/15	N/A	0
3/16	N/A	0
3/22	N/A	0
3/26	N/A	0
4/10	N/A	0
4/11	N/A	0
4/19	N/A	0
4/20	1. Excuse me, let's play computer	1
5/1	N/A	1
5/21	2. Oh good work 3. That's it, you're done	3
5/23	N/A	3
6/5	N/A	3
7/9	N/A	3
7/18	N/A	3
7/27	N/A	3
7/31	N/A	3
8/1	N/A	3
8/7	4. That's very fun	4
8/13	N/A	4
8/14	N/A	4
9/7	5. I'm building a fire truck	5
9/12	N/A	5
9/14	N/A	5
9/17	N/A	5
9/20	N/A	5
9/25	N/A	5
9/27	N/A	5
10/1	N/A	5

Teaching		
10/2	6. Do you like your model? 7. I'm making a police car 8. On Friday we're going to see a movie about monkeys 9. I'm building a police car 10. Who's picking you up?	10
10/3	11. Wow I like your model building 12. We're leaving for the movies at 5 13. Remember, you're going to do great at model building 14. Is Gordon your babysitter picking you up? 15. Did Mom send your model? 16. Don't worry, you'll finish the model	16
10/4	17. Good job 18. Great job 19. We're building	19
10/5	20. My model is tough 21. My model is cool 22. Your model looks very great 23. You're very good at model building	23
10/9	24. My model looks cool 25. You're very great at model building 26. It's a good thing you know about model building 27. These Legos are tough 28. Thanks for doing model building	28
10/10	29. Your model looks tough 30. What vehicle are you building? 31. Look what you're building 32. Great work 33. You love model building 34. You're doing very great with your model building	34
10/11	35. You're very good at this 36. My model building looks cool	36
10/12	37. I heard the door shut 38. Wow I really love my model building 39. My bus is picking me up soon 40. After model we'll do computers 41. What are you going to play on computer? 42. Your buses will be here any minute 43. Very soon we'll play on computers 44. How old are you? 45. Nice model building	46
10/17	46. My Legos are cool 47. You're great at that 48. Your model building looks cool 49. It's almost time to do computers 50. What model are you building?	50

10/18	51. Is that for model building? 52. What will we do next? 53. Will you be ten this weekend? 54. You have to check out your book 55. You're excellent at models 56. Nice job 57. No computers today	57
10/19	58. Nice Legos 59. Did you hear that? 60. We're just gonna do model building as fast as we can 61. I know you're very great at doing model building 62. Your model building is great 63. Excellent work 64. Who's doing model building?	64
10/22	65. What are you gonna do today? 66. What are you doing now? 67. Hear that baby crying? 68. Model building is coming right up 69. What can I do for you today? 70. It's computer time 71. You can finish your Legos another day	71
10/23	72. That was Colleen 73. Are you excited to go to the park? 74. What vehicle will you do next? 75. We're going to the swing park 76. Welcome to the Lego store 77. What Lego are you on? 78. You'll have many minutes to do Legos 79. You can finish your model 80. You have a lot of minutes	80
10/25	81. You have a lot of minutes to finish your model 82. You're building a fire engine 83. You almost have time to finish your model 84. You know what? You're great at model building 85. You forgot to build your fire truck 86. A few more days at model, then you get new model games 87. What time will you try your new model building? 88. You're gonna get a new model building soon	88
11/5	89. You better do model before home 90. Your model looks like a helicopter 91. Great model 92. You must be going home soon 93. Do you love your helicopter? 94. Excellent job 95. Keep building your model	98

	<p>96. What's the matter? 97. As many models as you can reach 98. My gosh, Ian, that was great</p>	
11/7	<p>99. Are you going to try models? 100. You picked up another model 101. Nicole's birthday is coming up 102. I hear a street sweeper 103. What did you work for in gym? 104. You get to build a street sweeper 105. What should you do if Daddy picks you up? 106. What about your model? 107. Would you like to do computers again? 108. That's a helicopter model 109. It looks like we're almost done 110. Use one of those pieces to build a model 111. Thanks for playing 112. That's what I did last time</p>	112
11/8	<p>113. Look at your model, it's a dump truck 114. Are you building a flatbed or a fire truck? 115. Are you doing a school bus? 116. We don't have a mail truck model 117. No iPad today 118. What are you making? 119. You'll do it all by yourself 120. This model is not working 121. Close the bucket 122. Shut the bucket 123. The piece is broken 124. Uh oh, Aiden shut the bucket 125. Your fire truck looks orange</p>	125
11/13	<p>126. Your model has a lot of things to do 127. We did iPads last time 128. School is so much fun 129. We have to make a plan doing Legos 130. It looks like another gray part is missing 131. I found the part 132. You're building a helicopter 133. Wow, we're going to do iPad after models 134. Are you doing the tow truck? 135. Are you doing the black police car? 136. You're doing a very great job 137. I like your glasses 138. You're almost finished building 139. What's your favorite model? 140. This model's the police care one</p>	140
11/14	<p>141. After model, I'll do Glow Draw on the iPad</p>	146

	<p>142. Are you building a tow truck? 143. You're building Legos 144. There's another piece missing 145. You have to build your police car 146. What should we do now?</p>	
11/26	<p>147. Would you like to build the blue truck? 148. Your numbers are cool 149. Can you help me? 150. What do you think we're doing now? 151. What are we doing after models? 152. There's a new student today 153. There's a different student today</p>	153
11/27	<p>154. I love this model 155. Your model looks very cool 156. Your model looks like a fire truck 157. Your fire engine looks cool</p>	157
11/28	<p>158. I love your airplane 159. Are you building a model? 160. What else are you doing?</p>	160
12/3	<p>161. That is very good 162. This piece looks like the letter Y 163. Are you building a yellow truck? 164. It's a picture of a fire truck 165. Do you like playing Legos? 166. This piece looks like a diamond 167. Are you building a yellow airplane? 168. Are you building a blue helicopter? 169. Are you building an orange fire engine? 170. Are you building a blue fire truck? 171. We're gonna play iPads soon 172. Oh no, more pieces are missing</p>	172
12/4	<p>173. What model are you doing? 174. You're doing the blue truck 175. Are you doing the orange truck? 176. A piece just fell off 177. Are you doing the orange airplane or blue truck? 178. Check it out, you're building a monster truck 179. After models we're doing computers then going home 180. You're building an orange airplane</p>	180
12/6	<p>181. Ok, here we go 182. Look, there's a window 183. There's a little number 5 184. Are you doing the helicopter model? 185. Look, there's a 5 186. Look at the tire 187. You're making a helicopter</p>	188

	188. I heard a truck go by	
12/10	189. Look, what does this say? 190. Look, it looks like an L 191. Look, it's razor 192. Hey look Ian, what's this? 193. Hey look it's teeny tiny 194. You're doing a very good job 195. Look this piece has stars on it 196. Look it's a picture of a racecar 197. What are you gonna do on the computer?	197
12/19	198. I can't wait to do computers after models 199. Does it look sparkly? 200. That piece doesn't go on there 201. Wow you're a very good builder 202. We'll do computers soon 203. What are you gonna play on the computer? 204. This doesn't fit here	204
12/20	205. Your model makes sense 206. Ta da, I found it 207. Ian, it drives 208. Can you help me with the small light? 209. Want to play models? 210. I can't wait for the bus	210
1/7/13	211. We're not gonna play computers today 212. Tomorrow I'm going to Creatabilities 213. Nice work 214. I don't think we're gonna do computers 215. You're doing a good job with models 216. We don't have time to play computers 217. What's your favorite vehicle? 218. Is a dump truck your favorite vehicle? 219. How many pieces are you gonna make? 220. What a good job 221. Sorry we're all done with computers today 222. It's almost time to go home 223. Hey that piece looks like an umbrella 224. Whose birthdays are this month?	224
1/8	225. Your model is very good 226. What model do you think you're building? 227. It's almost time to clean up our models and do computers	227
1/11	228. Look it does fit 229. That piece doesn't fit there 230. Look at all the numbers 231. Look there's a five on that car 232. Look it's the number 7	240

	<p>233. The number one is all smushed 234. Look here's model number 4 235. Look it's model number 2 236. Which model is number 4? 237. We can do iPads Wednesday 238. That was a good job you did, really nice work 239. What model is number 5? 240. What model number are you doing?</p>	
1/15	<p>241. We can't do computers today 242. It's almost time for the bus 243. Look it's 7Up 244. Look a rectangle 245. I'm doing great 246. Can you help me build the piece? 247. What a cool model 248. That's a very cool orange rectangle 249. It's almost time for me to go to Creatabilities 250. Your red fire truck looks cool 251. Very good model</p>	251
1/17	<p>252. I burped 253. We'll have to look for that piece next time 254. This piece looks like number 11 255. What number does it look like? 256. I like this eleven 257. Wow this piece is shaped like 11 258. Isn't it cool, 11? 259. Remember when we played computers last week? 260. Colleen isn't here today</p>	260
1/18	<p>261. This model is terrific 262. I almost finished the airplane model 263. This racecar model is so much fun 264. Your models are fantastic 265. You're doing a good model</p>	265
1/23	<p>266. My tooth almost fell out 267. Excellent model 268. You're doing excellent with your model 269. Wanna do computers after models? 270. You're doing excellent work with your model 271. You're doing such a good job with your model 272. Charlie isn't here today, he's absent 273. The bus is gonna be here soon 274. Guess what, I wonder where Charlie is 275. That was the fart monster 276. Charlie will be back tomorrow 277. Look at how happy you are doing your model</p>	277
1/29	<p>278. I did it</p>	282

	279. Your model is stupendous 280. You did a fabulous job 281. Did we do a good job with our models? 282. Look there's a pink piece	
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Lunch

Scripts: My food is so good
 Lunch time is my favorite
 I love eating lunch
 This tastes so yummy
 Look what I'm eating

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	N/A	0
3/7	N/A	0
3/9	N/A	0
3/13	N/A	0
3/14	N/A	0
3/15	N/A	0
3/19	N/A	0
3/20	N/A	0
3/21	N/A	0
3/22	N/A	0
3/23	N/A	0
3/26	N/A	0
3/27	N/A	0
3/29	N/A	0
3/30	N/A	0
4/9	N/A	0
4/10	N/A	0
4/11	N/A	0
4/12	N/A	0
4/13	N/A	0
4/16	N/A	0
4/17	N/A	0
4/18	N/A	0
4/20	N/A	0
4/24	N/A	0
4/25	N/A	0
4/30	N/A	0
5/1	N/A	0
5/3	N/A	0
5/7	N/A	0
5/8	N/A	0

5/10	N/A	0
5/14	N/A	0
5/15	N/A	0
5/16	N/A	0
5/17	N/A	0
5/21	N/A	0
5/22	N/A	0
5/23	N/A	0
5/29	N/A	0
5/30	N/A	0
5/31	N/A	0
6/1	N/A	0
6/5	N/A	0
6/6	N/A	0
6/11	N/A	0
7/6	N/A	0
7/9	N/A	0
7/10	N/A	0
7/11	N/A	0
7/12	N/A	0
7/16	N/A	0
7/17	N/A	0
7/18	N/A	0
7/20	N/A	0
7/27	N/A	0
7/30	N/A	0
8/1	N/A	0
8/6	N/A	0
8/7	N/A	0
8/8	N/A	0
8/9	N/A	0
8/10	N/A	0
8/13	N/A	0
9/6	N/A	0
9/7	N/A	0
9/10	N/A	0
9/11	N/A	0
9/12	N/A	0
9/13	N/A	0
9/17	N/A	0
9/18	N/A	0
9/19	N/A	0
9/20	N/A	0
9/24	N/A	0
9/25	N/A	0

9/26	N/A	0
9/27	N/A	0
10/1	N/A	0
10/2	N/A	0
10/3	N/A	0
10/4	N/A	0
10/9	N/A	0
10/11	N/A	0
10/12	N/A	0
10/17	N/A	0
10/18	1. How was gym today?	1
10/19	N/A	1
10/22	N/A	1
10/23	N/A	1
10/26	2. Great work 3. Who's picking you up?	3
11/5	N/A	3
11/6	N/A	3
11/8	N/A	3
11/9	4. Uh oh your lunch box fell down	4
11/13	N/A	4
11/14	5. What's your favorite food?	5
11/16	N/A	5
11/21	6. What are you doing for you today? 7. What do you think you're doing?	7
11/26	N/A	7
11/27	N/A	7
11/29	8. Can you help me with those?	8
11/30	9. What are we having for lunch today? 10. What are you doing?	10
12/3	11. What are you eating?	11
12/4	N/A	11
12/6	12. You're doing great	12
12/7	13. Look it's a circle shaped pizza with sauce and cheese 14. It's almost time for a field trip 15. Your birthday is March 25 th	15
12/10	N/A	15
12/11	16. Who's crying?	16
12/12	N/A	16
Teaching		
12/13	17. What food are you eating? 18. Good eating 19. I'm eating an apple 20. Great lunch 21. Good job	24

	22. Your lunch looks good 23. Do you like your lunch? 24. What lunch are you eating?	
12/19	25. That was loud 26. Check out what you're eating	26
12/20	27. I'm eating rice 28. That was yucky	28
12/21	29. I cannot wait to go to the movie 30. This tastes so good	30
1/3/13	N/A	30
1/4	31. My food is so yummy 32. I can't wait to drink all of this bubbly water 33. This food tastes yummy 34. This food is so yummy	34
1/7	35. You like your food?	35
1/8	36. You're doing a good job eating 37. Good work 38. Nice work 39. You like tomato sauce? 40. You're doing a good job eating your food 41. This coffee looks terrific 42. I finished all my pasta 43. Are you gonna eat your banana now?	43
1/10	44. Great eating	44
1/11	45. Someone else is crying 46. You're eating your food so nicely 47. Your food is very good 48. You know what? You're doing a good job eating your food 49. I ate my whole sandwich 50. You're eating your lunch 51. You're finishing your banana 52. Can you open it?	52
1/15	53. I like to eat your food 54. You're doing a good job eating lunch all by yourself 55. Look there's an orange and a granola bar 56. You're doing a good job eating your lunch, it's so cool 57. That pizza tastes good 58. My lunch tastes good 59. I almost finished my lunch	59
1/16	60. Do you like your juice? 61. My food is very yummy 62. This bagel is so yummy 63. You're eating your apples and your strawberries 64. You're eating a banana 65. You're eating your strawberries	79

	<p>66. Your apple tastes yummy 67. Are you eating your fruit? 68. You're a really good eater 69. Nice foods 70. I love your strawberries 71. That mac and cheese was yummy 72. What are you having in your fruit? 73. Do you like your strawberries? 74. Do you like your banana? 75. You wanna eat your strawberries now? 76. Nice eating 77. Are you gonna eat the last apple? 78. There's only one apple left 79. Did you finish eating?</p>	
1/17	<p>80. I like your sandwich 81. What food do you have? 82. Your kind of food tastes yummy 83. I like how you're eating your sandwich 84. You're finishing your sandwich 85. You're finishing your lunch 86. Your juice tastes very good 87. Are you eating your orange?</p>	87
1/18	<p>88. Do you like your sandwich? 89. Do you like eating your sandwich? 90. Your sandwich tastes good 91. You almost finished your sandwich 92. You're finishing your other sandwich 93. Good eating your sandwich 94. You finished your whole food 95. You did a great job eating 96. Are you gonna drink your soda? 97. I love how you're eating your apple 98. You did a good job</p>	98
1/22	<p>99. Do you like eating your food? 100. I like how you're eating your food nicely 101. You almost finished your food 102. You finished your food so nicely</p>	102
1/23	<p>103. Do you like your vanilla bar? 104. I love how you're eating your bar 105. You're finishing your bar by yourself 106. I love how you're eating your noodles 107. Cool food 108. You almost finished your banana all by yourself 109. You like eating your noodles? 110. Do you want to eat your food? 111. Do you love eating your noodles?</p>	112

	112. Good food	
1/25	113. This is a cool apple 114. This food tastes very good 115. You almost finished your apple 116. You're doing a good job eating your apple	116
1/26	117. Is it terrific food? 118. Your grape juice looks good 119. Are you doing a good job eating your food?	119
1/27	120. What good food you're eating	120
1/28	121. You're doing a good job drinking 122. What's the question? 123. Good soda 124. Good vanilla bar	125
1/29	125. Are you drinking your juice? 126. Are you eating your cheese stick? 127. Good cheese stick 128. Are you finished with your cheese stick? 129. You finished your cheese stick, good job! 130. Good check note 131. What a good banana 132. Let's see you try your banana 133. I finished my peanut butter and jelly	133

Ollie – Novel Initiations – Across Novel Stimuli

Laptop

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	N/A	0
3/7	N/A	0
3/8	N/A	0
3/9	N/A	0
3/16	N/A	0
3/21	N/A	0
3/23	N/A	0
3/28	N/A	0
4/9	N/A	0
5/7	N/A	0
5/21	N/A	0
5/31	N/A	0
Scripts Introduced with Training Stimuli		
7/13	N/A	0
7/27	1. Check it out, I got 18 2. Check it, now I got a 26	8

	<p>3. Check it out, I got a 67 4. Check it out, I did towers up to 26 5. Check it out, I did the towers up to 5 6. Check it out, I did the towers up to 8 7. Check it out, I did the towers up to 18 8. Check it out, I did the towers up to 68</p>	
7/30	N/A	8
7/31	<p>9. This game of Six Towers is awesome 10. This game of Six Towers is excellent 11. I like this game 12. This game is fun 13. This game is very good 14. I really like this game 15. Nice job 16. I really love this game 17. This game is cool</p>	17
8/7	N/A	17
8/9	<p>18. I'm doing the right thing 19. That's a very good game of Angry Birds 20. Angry Birds is fun 21. Check it out, it's an ambulance 22. That's a very big game 23. That's a very fun game 24. You're playing Bugdom 25. Look that's a red shirt 26. You're a very good hero 27. Check it out, it's a pizza 28. Check it out, it's a little gray car 29. This is a very cool game 30. Check it out, it's Charlotte's daddy</p>	30
8/10	<p>31. Check it out, you made an ambulance 32. Check it out, it's a penguin 33. It's a car 34. The time on the clock says 6:00 35. How old are you? 36. Check it out, it's a number 26 37. Check it out, it's a 1, 2, 3 38. Check it out, it's a big yellow 10 39. Check it out, you made a police car 40. Check it out, it's a stained glass window 41. Check it out, you made a fire engine 42. Hey it's a blue 14 43. Check it out, it's a Q20 bus 44. I'm having a fun game 45. I got 26 towers 46. It has a 22 on it</p>	57

	<p>47. I can't wait for the book 48. Check it out, it's Jimmy Neutron 49. Check it out, it's a blue 2 50. Check it out, it's 2, 4 ,6 51. Check it out, it's a green 4 52. Check out this game 53. After I go on the bus we are going to have a party with family members 54. Look I made orange 14 55. Check it out, it's a gymnastics class 56. You made a fun game 57. Fire engines are very loud</p>	
9/10	<p>58. It says game over 59. Wow, that's a very fun game of Bugdom 60. Uh oh, game over</p>	60
9/14	<p>61. You're doing well with that game 62. You're doing great 63. Good work 64. You are a very good iPad player</p>	64
9/18	<p>65. It's a puny little moon 66. That's very fantastic 67. The bug is running 68. Look it's the chipmunks 69. Where did you get the iPad? 70. Very good job 71. Check it out it's a bumblebee 72. It's Bugdom 2 73. It's a bee flying 74. You won 75. Look blue water 76. It says the front yard 77. It's a bee flying 78. Do you like this game?</p>	78
9/26	<p>79. I know you're doing very good 80. I heard the door shut 81. I'm so happy we're playing iPad today 82. Andy is at St. Fidelis 83. You're a wonderful iPad player 84. Who's picking you up tomorrow? 85. You're playing Where's My Water 86. Daddy is taking you home tomorrow 87. Wow you're playing the iPad</p>	87
10/4	N/A	87
10/9	<p>88. I like Angry Birds 89. I did it 90. We're doing great</p>	96

	<p>91. I got 1270, I did it 92. We're all finished with model building 93. Wow, 290 I love that number 94. It's a good thing you know about Six Towers 95. You're doing Six Towers fast 96. I love to play Angry Birds</p>	
10/18	<p>97. I know you're doing great 98. That's a car 99. Yay you're doing computer by yourself 100. Did you hear that?</p>	100
10/24	<p>101. We must be going home soon 102. Better play iPad before home 103. How are you? 104. Excellent work, you're doing great work 105. You got all of them 106. You know what? You're great at coloring 107. That is cool 108. Oh no your coloring is going away 109. We're gonna need your help 110. You're very great at yours 111. You're great at this iPad 112. Did you play that one? 113. Look, Aiden is playing iPad 114. You know what? You love your kids doodle 115. You know what? You have to try again 116. Don't worry Ian</p>	116
10/26	<p>117. No more computers today, we're finished 118. Nice colors 119. Those are all the colors I made 120. Let's play some more iPad 121. Somebody's upset 122. What are you doing? 123. You're playing iPad all by yourself 124. I'm gonna make the color green 125. Here it is, it's green, I love that color 126. I made a traffic light 127. I know you loved it 128. How many times did you do iPad? 129. You're doing so well 130. What should you do next? 131. Good work, I got another iPad here</p>	131
11/5	<p>132. I made red and yellow 133. What game are you playing? 134. Check it out, it's Alvin 135. Check it out, it's Theodore 136. Great colors</p>	140

	<p>137. I hear a baby crying 138. You're great at Six Towers 139. You lose the game 140. I spelled the word "master"</p>	
11/13	<p>141. I'll play Glow Draw after Bugdom 142. You need to set up Six Towers 143. Look the bug is covered up 144. Too bad it says game over 145. Look the arrows are gone 146. Don't touch it 147. Look at all the things we're doing 148. He's jumping 149. Look, he's jumping on the trampoline 150. Look the sky looks like pink and purple 151. I'm making him jump in the sky 152. I love the iPad 153. It's almost time to play Glow Draw 154. Look it says Brian on there 155. I see a girl through the window 156. Bugdom 2 is almost over 157. Look we're playing iPads 158. Bugdom is jumping high 159. You're done drawing Jimmy Neutron 160. Look there's a bumblebee 161. Look how black the sky looks 162. Are you gonna set up Six Towers? 163. We must be playing computers soon</p>	163
11/26	<p>164. What can I do for you today? 165. I heard a truck go by 166. We already did model time 167. Look at all those numbers 168. We'll play computers after iPads 169. I hope you play computers 170. What are you doing now?</p>	170
11/30	<p>171. Who's crying? 172. Hey it's so good to see you 173. Look blocks broke 174. What else are you doing? 175. I love how you're playing iPad 176. That was a great picture</p>	176
12/4	<p>177. What numbers do you see on the iPad? 178. I can't wait to go to Creatabilities 179. We're gonna do it again 180. Check out all those numbers</p>	180
12/13	<p>181. What a great game 182. Let's do level 6</p>	190

	<p>183. What a cool number 184. What level should we do today? 185. Maybe we could play computers today 186. Let's do level number 4 187. What level should we do next? 188. Guess what level we're gonna do next? 189. Okay now we can do number 4 190. We're going home after computers</p>	
12/20	<p>191. What number do you think we're gonna do? 192. Do you think we should do 9 or 8? 193. Should we do 5 or 3? 194. Should we do 9 or 10? 195. Should we do 8 or 3? 196. Should we do 1 or 6? 197. Should we do 5 or 10? 198. Should we do 2 or 7? 199. Should we do 10 or 8? 200. Should we do 4 or 9?</p>	200
1/7/13	<p>201. Nice iPad 202. There's no bumblebee 203. Are you playing Frankenweenie? 204. What are you playing? 205. It's almost time to go to the annex to play computers 206. I saw a bumblebee 207. You're doing level 10 208. Your iPad has a lot of levels 209. What level do you want to do next?</p>	210
1/10	<p>210. Look what's there, is it a bumblebee? 211. We're not doing models, we're doing computers after iPads 212. When will we do computers? 213. There's a blue fountain 214. What does it say? 215. What is this? 216. Look red flowers 217. Look, left right up down 218. What is that flying? 219. What are we gonna do after iPads? 220. You have a jacket 221. What do you have on your jacket? 222. You're doing a very good iPad game 223. What's it time for after iPads?</p>	223
1/15	<p>224. Oh look I made a 13 on the iPad 225. Look it's a fan 226. I made a number 5 on the iPad 227. Check it out I made the number 5 228. There's number 8</p>	234

	229. Oh look it's letter A 230. It's coming up now 231. Oh look there's a D 232. Are we all done with iPads? 233. Almost time for models 234. Wow you did such a good job with your iPad	
1/23	235. I learned a new iPad game 236. My tooth is almost loose 237. My tooth almost fell out 238. The iPad only has 10% 239. Look you got 64 240. Way to go	240
1/29	241. Do you think we'll play computers today? 242. Do we have time to play computers? 243. Good computer games 244. That was circles 245. Look it's raining 246. I drew B's 247. We'll see if we have time to play computers 248. I got the wheel 249. I love you Aiden 250. It's raining and the sky is purple	250

Model Building

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	N/A	0
3/8	N/A	0
3/9	N/A	0
3/19	N/A	0
3/23	N/A	0
3/27	N/A	0
4/16	N/A	0
4/18	N/A	0
5/16	N/A	0
5/29	N/A	0
7/10	N/A	0
7/27	N/A	0
7/31	N/A	0
8/8	N/A	0
9/10	N/A	0
9/18	1. We're doing model building	1
9/26	N/A	1

	Scripts Introduced with Teaching Stimuli	
10/10	2. This is the best model building ever	2
10/17	3. That's so fantastic 4. Wow, nice model building 5. Excuse me, can you do it? 6. Wow great model building 7. Can you help me do it again? 8. Excellent work 9. Great job 10. Wow you're making a tow truck	10
10/22	11. We're gonna do one more model 12. That's a vehicle 13. Great work 14. Are you building a car? 15. Are you building a vehicle with your model? 16. That's a big tow truck 17. Are you excited to finish your model? 18. Yay, nice model building 19. What model are you building? 20. You're very great at model building 21. You can do computers after one more model 22. It takes a lot of minutes to do models 23. Finish your model 24. You know what? Great model building 25. You have a lot of Legos to do 26. You can finish your model 27. What's next on your model? 28. You have to do model number 6 29. You're doing great 30. We went to church yesterday 31. Your vehicle looks terrific 32. You can play with it, then you have to put it away 33. I'm building a tow truck	33
11/6	34. You can play with it then you have to put it back 35. What truck model are you building? 36. What is this? 37. Look it's a racecar model 38. Ian made a car 39. What did you make? 40. I'm building a racecar 41. This racecar looks terrific 42. What model is this? 43. What are you doing? 44. You're so happy right now 45. Way to go 46. Yay you're doing it	54

	<p>47. That's a lot of models 48. Are you gonna build a tow truck? 49. You cannot take it home 50. That's a stick, it does not go in your mouth 51. What new model will you build? 52. Look it's a car model 53. Look it's a flatbed truck 54. Oh no the tow truck is broken</p>	
11/9	<p>55. After model we'll do computer 56. After model we'll do iPad 57. You must be going home later 58. Models is almost over 59. Computers is over for the rest of the day 60. What costume are you? 61. You almost finished your bulldozer 62. Did you have fun playing computers? 63. Can we keep playing for a few minutes? 64. Tremormous job 65. Can we do models a few more minutes?</p>	65
11/15	<p>66. What's your favorite instrument? 67. Your favorite instrument is the jazz guitar 68. It's almost time for me to go to Creatabilities 69. You're good at numbers</p>	69
11/28	<p>70. We're gonna do computers after models 71. Your bus is gonna be here soon 72. This is a diamond 73. Your bus is coming soon 74. What model would you like to do?</p>	74
11/21	<p>75. Someone's crying 76. You're doing your model 77. Can you say models? 78. Mine has a motor 79. This is too tough</p>	79
12/5	<p>80. What model would you like to do today? 81. Look there's a flatbed truck 82. I'm not doing the tow truck today 83. Can you smell pizza? 84. This isn't working 85. Would you like to do the yellow helicopter or green truck? 86. What model am I building? 87. Would you like to do 1, 2, 3? 88. You're doing the green truck 89. What can I do for you today? 90. What vehicle do you think it's going to be? 91. Look at all those pieces</p>	96

	<p>92. Look the number 5 93. What juice are you drinking? 94. We're gonna go home soon 95. I'm doing the blue car 96. There's no smoke coming out</p>	
12/21	<p>97. This piece doesn't go there 98. I made the car 99. Are we finished?</p>	99
1/3/13	<p>100. There's a piece missing, we'll have to find it next time 101. I found the missing piece 102. How old are you? 103. This piece works 104. I just found this piece 105. I'm doing great 106. Those pieces are just right 107. Nice work</p>	107
1/10	<p>108. I'm making a tow truck, biggest I've ever seen 109. We're not playing computers 110. Terrific job 111. You're doing a good job 112. I'm making a tow truck and you're making a bulldozer 113. I can't find the pieces 114. Look at the tow truck 115. What was your favorite part? 116. Can you take the piece off? 117. We're not doing computers today, we'll do computers later 118. Can you put this piece on the tow truck? 119. You did it, you fixed the tow truck</p>	119
1/17	<p>120. It's a picture of a back hoe, see it? 121. It's not a back hoe, it's a digger 122. Look there's a stained glass window 123. Look it's a back hoe 124. You're doing such a great job 125. I love your model 126. I put orange lights on my back hoe 127. Oh I love your car model 128. Are you building a flatbed? 129. It's almost time to go home 130. What's the digger picking up? 131. Look there's an excavator model and a back hoe model 132. I'm doing such a good job with my back hoe model 133. It's almost time to go home because the bus is coming</p>	139

	134. How are you? 135. Sorry we're not gonna play iPads and computers today 136. You're making a car model 137. Are you building a flatbed or a back hoe? 138. You're doing good work 139. Do you have any oil?	
1/24	140. Nice tow truck 141. What does this say? 142. You're doing such excellent work 143. Excellent job 144. Almost time to do computers 145. You're doing nice work with your model 146. I think we're finished with models 147. Look a rectangle	147
1/30	148. Do you think that was it? 149. What a good model you're doing 150. We're running out of time 151. Good model, it's the tow truck 152. Do you think we'll do computers after models? 153. Are we gonna play computers after models? 154. That's it, we're all finished with models 155. Look it says 555 156. I finished my whole model 157. I don't think we're gonna play computers	157

Lunch

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/8/12	N/A	0
3/9	N/A	0
3/12	N/A	0
3/16	N/A	0
3/28	N/A	0
4/13	N/A	0
4/19	N/A	0
4/26	N/A	0
5/2	N/A	0
5/9	N/A	0
5/31	N/A	0
7/13	N/A	0
7/19	N/A	0
7/30	N/A	0
8/2	N/A	0

8/15	N/A	0
9/17	N/A	0
9/21	N/A	0
9/28	N/A	0
10/10	N/A	0
10/19	1. Did you hear that?	1
10/25	2. What are we going to do? 3. What are you eating?	3
11/7	N/A	3
11/15	4. We're gonna watch a movie after lunch	4
11/21	5. What are you guys eating?	5
11/28	N/A	5
12/5	6. What are you doing?	6
	Scripts Introduced with Training Stimuli	
12/14	N/A	6
1/4/13	7. Whose birthday is this month? 8. Tomorrow we'll sing happy birthday 9. Tomorrow is Colleen's birthday 10. Guess what? Tomorrow Colleen will have a cupcake with a candle 11. Tomorrow's Colleen's 25 th birthday 12. How old will Colleen be? 13. Whose birthday is tomorrow? 14. This ice cream tastes good 15. We're gonna play computers soon 16. Your ice cream says BR 17. My father's almost here	17
1/9	18. You're doing a good job 19. Is that what you want to do? 20. When is your birthday? 21. Eat the French fries 22. There's no more ketchup 23. That's it, you're doing a good job 24. I'm eating a hamburger 25. I can't wait to go to the movies 26. I took a big bite of my hamburger 27. It's almost time to go to the movies 28. We're gonna take the van to the movies 29. I almost finished my hamburger	29
1/18	30. Your ice cream tastes yummy 31. Nice work 32. You're doing good eating your ice cream 33. Good ice cream 34. Nice ice cream 35. I love you Ian 36. That ice cream was yucky	36

1/25	37. You're doing excellent work eating your ice cream 38. Good eating 39. After we eat ice cream we'll play computers 40. I love how you're eating your food 41. After ice cream we'll not do models, we'll do computers 42. You're doing a good job eating your ice cream 43. Are you eating your ice cream?	43
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Ollie – Novel Initiations – Across Novel Setting

Laptop

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/13/12	N/A	0
4/24	N/A	0
5/1	N/A	0
5/21	N/A	0
5/29	N/A	0
5/19	N/A	0
Scripts Introduced with Training Stimuli at School		
7/16	N/A	0
8/6	1. Guess what Molly? You get to turn 45 tomorrow	1
8/13	2. This game is fun 3. Hey there's a number on this train 4. Want to listen to music? 5. Are you 48 years old? 6. How old are you? 7. Are you 84 or 82? 8. Computers are very loud 9. Would you like to come work on the computer?	9
9/27	10. Look it's Jimmy Neutron 11. You're back on Round 1 actually 12. Look it's Disney's 101 Dalmations 13. Great you got Round 5 14. Great work 15. Great you finished round 8 16. I did it, I did the SpongeBob 17. I love this game 18. You are on round 1 19. Great job 20. Uh oh you can't do this it's unlocked 21. You are on level 35 22. Now you're on round 4	22
10/8	23. Wow I like your new game	34

	<p>24. Are you playing Umi Zoomi? 25. You're doing very nice 26. Wow your game looks terrific 27. Wow you're playing it all by yourself 28. Look it's a picture of Ian 29. You are a very good computer player 30. Look it's a picture of Ian at a new school 31. I got picture 379 32. You're doing very great 33. I know you can do it 34. You're doing very nice</p>	
10/22	<p>35. Hear the hammer? 36. Oh boy great work 37. I love your computer game 38. You're very great at your computer game 39. Let's try again 40. Great work, you're on round 5 41. Uh, not good, this game isn't good 42. Do not touch that 43. Are you gonna keep playing computer? 44. That is okay 45. You're doing another computer game 46. There's must be like a lot of computer games to play</p>	46
11/25	<p>47. Oh it's the alphabet 48. You have to pull it off 49. It says game over 50. Did you hear the bubbles? 51. What should we do next? 52. We did that 53. I would love to play cars with you 54. You have school tomorrow 55. You got 60 56. Do you want another computer game? 57. Look it says 2011 on it 58. Do you want another weather game? 59. You have Spanish tomorrow 60. Would you like another computer game? 61. Someone has a pink umbrella 62. You have to mail a letter 63. Look at all those bubbles going in the sky 64. Do you have Spanish tomorrow morning? 65. Push the blue button 66. Look it's snowing outside 67. There's the green go button 68. You're starting kindergarten tomorrow 69. Oh boy it makes 11</p>	71

	<p>70. The bubbles are missing 71. What do you think you're doing now?</p>	
12/2	<p>72. Okay you have about 6 minutes then we'll go do models 73. I'm very great at counting on my computer 74. This is my haircut, do you like it? 75. Good job 76. Look at all that rain 77. Wanna work for rainbow cookie? 78. We have to go play models soon 79. You're doing such a great job 80. You look so cool on your new computer game 81. There's some rainbow cookies, want to work for them? 82. Want to work for Zour Mike and Ike's? 83. There's a red stick that says check it out 84. Come one Molly, we gotta go play models soon 85. Look it says 0025 86. It's broken 87. Look it's the Eiffel Tower 88. Look it says level 01 89. The Eiffel tower looks like the letter A 90. Thanks for helping</p>	90
12/10	<p>91. Oh yay I got a match 92. Hey let's see if we can get Higglytown Heroes on iTunes 93. Look there's Luigi 94. This is not working 95. Look at the numbers, yellow numbers 96. There's a yellow Mater 97. This isn't working, it's frustrating 98. Look it says no wind 99. There's Fin McMissile Molly 100. No wind, no thunder 101. Excelente Molly, I got 0606</p>	101
12/21	<p>102. Oh look backdrop 7 and 8 103. Your computer only makes 40 104. Good Molly, that's excellent 105. Look, that looks like a window 106. Good work 107. Do you see a doctor or a dentist on the computer? 108. Do you see Martha on the computer? 109. Did you get a letter and mail it? 110. You're doing a good job 111. Oh boy you're doing a good job 112. It's almost movie night 113. Do you like Harry? 114. Isn't that funny? 115. Look, dogs</p>	116

	116. Do you have an 88 candle?	
1/11/13	<p>117. It says 608 on it</p> <p>118. You're doing computer 12</p> <p>119. You're all set</p> <p>120. There's number 10 on the computer</p> <p>121. Nice work</p> <p>122. Your computer is 8 units long</p> <p>123. Count to five</p> <p>124. Let's count in Spanish</p> <p>125. I'm gonna play another game on the computer soon</p> <p>126. It's almost dinner time</p> <p>127. It's almost time for Alison to leave</p> <p>128. Can you count to 12?</p> <p>129. You're doing good work with the computers</p> <p>130. Look you got 10, 13, and 19</p> <p>131. What starts with the letter W?</p> <p>132. Nice work, it says bonus 50</p> <p>133. Door is not a furniture, nope</p> <p>134. Does waltz start with letter W?</p> <p>135. What begins with letter X?</p> <p>136. Xylophone does begin with letter X</p> <p>137. I think computers is almost over</p> <p>138. We're finished with computers</p> <p>139. Molly 5 minutes left</p> <p>140. Molly go like this</p> <p>141. How are you today?</p> <p>142. You need to get ten penguins</p> <p>143. Now you're on level 4</p> <p>144. What level are you on?</p> <p>145. Are you working on the computer?</p>	145
1/18	<p>146. Look it says 192</p> <p>147. Molly say pss pss</p> <p>148. That's a really cool game on the computer</p> <p>149. You need to finish computers</p> <p>150. Hi there it's so good to see you</p> <p>151. Look they're at school.</p> <p>152. You got trash 10</p> <p>153. Did you get 10?</p> <p>154. Molly you ran out of time you can't play computers now</p> <p>155. I think we're all finished with computers now</p> <p>156. That's it? It's not time for computers now?</p>	156
1/28	<p>157. What do you like about your computer game?</p> <p>158. I like how you're playing your computer game</p> <p>159. You're doing nice work</p> <p>160. You're doing excellent work with your computer</p> <p>161. Okay we're done with computers</p>	170

162. Dora's shirt has a 5 on it 163. Excellent job 164. Very good work 165. Look it's a laundromat 166. That's the phone 167. Is that it? 168. I think we're all done with computers, we did a nice work 169. Look it's a picture of the Wonder Pets 170. You got me a new letter in the mail	
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Model Building

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/13/12	N/A	0
3/20	N/A	0
4/24	N/A	0
5/1	N/A	0
5/21	N/A	0
5/29	N/A	0
7/16	N/A	0
8/6	N/A	0
8/13	N/A	0
9/27	N/A	0
Scripts Introduced with Training Stimuli at School		
10/8	N/A	0
10/22	N/A	0
11/25	1. You got a letter from the mailbox 2. Okay that's not for children 3. Did you take a letter out of the mailbox? 4. We can get a letter and mail it 5. Would you like to do the helicopter or truck? 6. I'm doing the red fire engine 7. Did you get a letter and mail it? 8. I have an idea 9. That was great you did all the models 10. Are we all finished with models? 11. I'd love to play cars with you 12. Do that again 13. Don't worry we can fix it 14. We're going to the Ritz 15. I'd love to play cars with you, but you have to go to bed	15
12/2	16. Would you like to do the orange plane or yellow truck? 17. I'm building an airplane	17

12/10	<p>18. Can we go back and see Daddy? 19. Oh look that says 5 and 8 20. Can you say 10:50? 21. You were in 1st place 22. We are talking about numbers 23. Thanks for being so patient 24. Your model's in 2nd place 25. There's no penguin in your model 26. There's not numbers on your model, just shapes 27. I'm gonna give you model 2, then do model 3 28. Okay we're done with models 29. Sorry we'll try to do it next time 30. Your model doesn't say 2008 31. We're all finished with models 32. Do you like 2009 or 2010? 33. There's not 17 and 16 on your model</p>	33
12/21	<p>34. That's a good model 35. Look it's 13 36. Look here's the numbers 1, 2, 3, 4 37. You're doing your bunny model 38. I'm doing such a good job on my model</p>	38
1/11/13	<p>39. Let me know when you count to 40 40. Let me know when I count to 30 41. That piece looks like the letter L 42. You're doing your model lots and lots of times 43. Let me know when you count to 50 44. Go to model 18 45. Look there's model 4, 3, 2, and 11 46. Guess what? Let me know when you count to 35 47. Alright you're almost done 48. You're doing a great job 49. Good job with your model 50. It's almost time for Alison to go 51. Alison has to go before you count to 5 52. You're doing a good job with your model, nice work 53. Nice job</p>	53
1/18	<p>54. Did your Grandma smile? 55. Who's a photographer? 56. We're almost finished with models 57. I think we're done with models</p>	57
1/28	<p>58. I think it's a tie 59. Did Grandpa Jerry die? 60. Did you know that we saw Luigi and Fillmore? 61. Did you know that we did another happy birthday at school? 62. Let me know when you're doing your model okay</p>	75

	63. That's it Molly 64. What food do you want to bring to school tomorrow? 65. Do you want to do happy birthday at school? 66. Look the numbers are black 67. Look they're squirmy wormies 68. You know Grandpa did die 69. That's it, models is over 70. We can't play computers again 71. We're talking about models 72. That's not ours 73. I think I'm going to do this again 74. I think models is over for today 75. Let me know when I'm going to do this again	
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Lunch

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/20/12	N/A	0
4/24	N/A	0
5/1	N/A	0
5/21	N/A	0
5/29	N/A	0
7/16	N/A	0
8/6	N/A	0
8/13	N/A	0
9/27	N/A	0
10/8	N/A	0
10/22	1. Do you go to the bake shop or coffee shop?	1
11/25	N/A	0
12/2	2. Do you think we're finished?	2
12/10	3. Do you like it?	3
Scripts Introduced with Training Stimuli at School		
12/21	4. That's sad	4
1/11/13	5. It's almost time for models 6. That's a big squirt of ketchup 7. Good job 8. You're doing a good job 9. I trust you 10. Nice eating 11. You're a very good eater 12. You're doing a good job eating	12
1/18	13. Good eating 14. What do you want?	14
1/28	15. Oh look Molly	19

	16. Look fart monster 17. Can you name the 9 positions in baseball? 18. Hola says hello in Spanish 19. We're done Molly	
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Ian – Novel Initiations

Laptop

Scripts: I like playing computer games
This game is so fun
Look at my game
My game is sweet
Computer games are really cool

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	1. What are you doing? 2. What are you listening to? 3. Are you playing SpongeBob?	3
3/7	4. Am I sad?	4
3/8	5. What game are you playing?	5
3/9	N/A	5
3/14	N/A	5
3/16	N/A	5
3/20	N/A	5
3/22	6. Look at this	6
3/28	7. Look, is George happy?	7
3/29	N/A	7
4/11	8. Look, Timmy Turner can't be in Jimmy Neutron	8
5/21	N/A	8
6/11	9. You're doing Photobooth 10. Look, I got it	10
7/10	11. You saw Madeline?	11
7/11	12. Look, Luigi got the piranha plant	12
Teaching		
7/12	N/A	12
7/13	13. Look at what I'm playing 14. Woody's coming to Jesse and Buzz 15. This is neat 16. Look, it got the ball	16
7/16	17. Look, my eyes are up 18. Look, I'm fat 19. Look, I'm being silly	19
7/17	20. Look, it's SpongeBob 21. This game is cool 22. Look, I won	23

	23. Look, it's Sandy	
7/18	24. My game is awesome 25. It's Words Grand Prix	25
7/20	26. This game is so awesome 27. Computer games are really fun	27
7/23	28. Computer games are really great	28
7/24	29. Computer games are awesome	29
7/25	30. I love playing computer games 31. Look at my computer game 32. You see what I'm playing? 33. You see my game?	33
7/27	34. This computer is too slow 35. I love this game 36. I like this game	36
7/30	37. I play Indiana Jones Lego 38. It's not connected 39. I can't go on aolkids.com 40. The internet stopped working 41. This picture is awesome 42. Look at my picture 43. I like this picture 44. This camera is fun 45. I like playing on the camera	45
7/31	46. It's hard 47. This game is hard	47
8/7	48. Do you like my game? 49. There is no game 50. I can't find a game 51. It's going slow 52. I can't find anything in there 53. Look, it's loading slow	53
8/8	54. I love this picture 55. I'm taking a lot of pictures 56. Check out my game 57. Look at what I'm taking 58. Cool game 59. I love taking pictures 60. Where's my head?	60
8/9	N/A	60
8/10	61. Check out my picture 62. This is a cool picture	62
8/13	N/A	62
8/14	N/A	62
9/6	63. Look, I did it 64. I can't do it	64
9/7	65. I lost	67

	66. I'm going to be Luigi now 67. The third level is too hard	
9/11	68. Check out what I'm playing	68
9/12	69. We're playing computer 70. That's a really cool game	70
9/13	N/A	70
9/15	71. Playing on computers is awesome 72. Playing on computers is so cool 73. Look at what I took 74. Taking pictures on the computer is fun 75. You have a basketball shirt 76. Check out my M	76
9/19	77. I'm playing Where's My Water 78. It's not moving	78
9/21	79. I like that Disney game 80. That's a nice Where's My Water game 81. This level is hard	81
9/24	82. I'm playing a different Toy Story game 83. This is like the movie 84. It's Rex 85. Rex couldn't get this party started up in here 86. This is like Buzz	86
9/28	87. Sorry you lost 88. I lost my website 89. Look, I'm red 90. Look at my glossy face	90
10/1	91. I almost had it	91
10/5	92. This game is tough 93. I can't go to level 6 94. Check it out, I'm almost winning 95. I missed it 96. I almost got it	96
10/11	97. Look what I'm doing	97
10/12	N/A	97
10/15	98. I'm gonna play pizza game 99. This is a videogame of Pokemon 100. I'm putting something on pizza 101. Look, I made pizza 102. Look, it's vegetable pizza 103. Look, I'm cooking the pizza 104. I'm ready 105. He's eating 106. I love playing pizza game 107. The internet is turned off	107
10/16	108. I love your game 109. I'm gonna win!	114

	<p>110. Are you playing a different game? 111. Cool diet Dr. Pepper 112. Look, that's Luigi 113. I keep losing 114. We both have sodas</p>	
10/19	<p>115. Do you like cars? 116. Look at what I'm playing, it's SpongeBob 117. We have awesome computer games 118. Computers are cool, isn't it? 119. I'm working for iPod touch 120. I can't play the games</p>	120
10/23	<p>121. I'm working for soda 122. I'm being Mario 123. I got really little 124. I like what you're playing 125. I got soda at Walgreens 126. You're playing Gravity Falls 127. That's what I'm gonna be this year</p>	127
10/26	<p>128. Look, is Aiden sad? 129. Look, it's a picture of Jimmy Neutron 130. Me and Aiden were in the picture 131. Aiden came out 132. I saw the Aiden pictures 133. Look, it's scary 134. I'm drawing Goddard 135. Look, it's a picture of Legos 136. Look, it's a picture of Star Wars 137. Look, I have one head 138. I'm gonna take four pictures at the same time</p>	138
11/6	<p>139. Look what I'm working for 140. This is a game of Mario 141. I almost have two more lives 142. I have one life left 143. Mario can't be white 144. I'm playing Mario flash 145. There's no models or iPads today 146. I have four lives left 147. I lost my lives</p>	147
11/7	<p>148. It's a picture of Mario 149. I have three more lives left 150. I'm gonna work for Mike and Ike's 151. I'm on level four 152. You're working for root beer? 153. They are called porcupines</p>	153
11/9	<p>154. Sid won 155. Sid didn't stop</p>	158

	<p>156. Look, it's a picture of Sid 157. I'm drinking out of a can 158. Sid's the winner</p>	
11/15	<p>159. Look, it's a picture of SpongeBob 160. This is a game of SpongeBob 161. Computer games are kooky 162. Those games are so kooky 163. Look what level I'm on 164. I didn't lose level 5</p>	164
11/19	<p>165. It's a picture of me 166. I'm taking a lot of pictures 167. We'll do models after computers 168. I like taking pictures on the computer 169. I'm gonna do x-ray 170. I'm drinking out of the bottle today 171. I'm doing Photobooth today 172. Look, there are four Ians 173. I love taking pictures at school 174. This is a picture of four Ians 175. I'm doing Pop Art now 176. This is a picture of my hand 177. You have nice glasses on 178. I like doing Photobooth on the computer 179. This is a picture of a leaf 180. I have one check left 181. I'm doing one picture now 182. This is a picture of an apple and a worm 183. We like taking pictures on the computer together 184. Look, this is my house</p>	184
11/27	<p>185. We have internet today 186. It's a cool game of SpongeBob 187. This is a cool pizza game 188. This is Jimmy Neutron 189. I did my game</p>	189
11/29	<p>190. My internet is slow 191. Look, it's a picture of Aiden 192. This is really blurry 193. It's going slow like Jimmy Neutron 194. This is a picture of me in the camera 195. Check it out, it's a picture of me 196. Look, it's a picture of a giant 197. This is a picture of my eyes up 198. It's a picture of my Jimmy Neutron toy 199. I'm gonna see a picture of my friend 200. Look, it's a button 201. Look, it's a picture of a book</p>	207

	202. Look, it's a picture of my face 203. It's a big tooth 204. Look, it's a picture of a chipmunk 205. Look, it's a picture of a space alien 206. Look, it's a picture of an iPad 207. Look, it's a picture of my tongue	
12/3	208. Gabriella won 209. Are you playing the Super Luigi game? 210. It won't start	210
12/5	211. Look, it's Sid the Science Kid 212. I like Sid the Science Kid 213. Sid didn't stop 214. My sister lost a tooth	215
12/11	215. I'm working for Pepsi today 216. This is my eyes 217. This is a picture of my mouth 218. Look, it's a picture of my teeth 219. This is a picture of you 220. This is a picture of a calendar 221. Look at me, it's a funny picture 222. Check out this picture, it's funny 223. My eyes are backwards 224. Look, those are moving fingers	224
12/12	225. Check out what I'm playing, it's Frankenweenie 226. I can't play Where's My Perry 227. I can't play Frankenweenie 228. Sprite is sweet	228
12/19	229. You can go on the computer 230. This is a picture of a star 231. This is a picture of a bee	231
12/21	232. It's new 233. P is for Pepsi 234. I can't wait for the trip 235. I can move my finger on there	235
1/2/13	236. This is the same game 237. That's a really cool funny game	237
1/4	238. I like action 239. I watch Master Tunes 240. I'm having a sip 241. I'm gonna play the Toy Story game 242. Why are you a gorilla?	242

Model Building

Scripts: Check out what I'm building

Your Legos look cool

Look at my model

These models are fun

We have awesome Legos

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	N/A	0
3/8	N/A	0
3/12	N/A	0
3/14	N/A	0
3/16	N/A	0
3/22	N/A	0
3/26	N/A	0
4/10	N/A	0
4/11	N/A	0
4/19	N/A	0
4/20	1. It's fun to do model building	1
5/21	N/A	1
5/23	N/A	1
6/5	N/A	1
7/9	N/A	1
7/18	2. This is cool 3. Check it out, I made a fire truck	3
7/26	4. We're playing Legos 5. Look at what I'm building 6. I like building Legos 7. I'm building a car 8. Look at my car 9. Do you like my car? 10. Look, I broke my car 11. It's going vroom, vroom 12. Look, I finished my car 13. Cool plane	13
7/27	14. Look at my helicopter	14
7/31	15. Look, I made an airplane	15
8/7	N/A	15
8/13	N/A	15
8/14	N/A	15
9/7	N/A	15
9/12	16. Look at my plane 17. I love building Legos	17
9/14	18. Cool car	20

	19. Cool helicopter 20. Look what I made	
9/17	N/A	20
9/20	N/A	20
9/25	N/A	20
9/27	21. What are you building? 22. We're building Legos	22
10/1	N/A	22
10/2	N/A	22
10/3	23. I'm a good builder 24. I like building Legos at school 25. I like to say charge 26. I love building Legos at school 27. Who's picking you up?	27
10/4	28. Look, the wheel broke	28
10/5	29. I'm taking it apart	29
10/9	30. This is still built 31. Look what I built 32. Are you okay?	32
10/10	N/A	32
10/11	N/A	32
10/12	N/A	32
10/15	33. That's Diet Pepsi	33
10/16	34. Here's your piece	34
10/17	35. My Legos are kooky	35
10/18	N/A	35
10/19	N/A	35
10/22	N/A	35
10/23	36. This is breaking apart	36
10/25	N/A	36
11/5	N/A	36
11/7	37. That's your piece	37
11/8	N/A	37
11/13	N/A	37
Teaching		
11/14	38. Look at what I'm working for 39. Building Legos is so much fun 40. I'm working for Snickers 41. This is a really cool model 42. Building Legos is so cool 43. I'm building my Legos 44. Building Legos is kooky 45. Your Legos look cool and kooky 46. I'm building a police car today 47. Building Legos is so good	56

	<p>48. After Legos, we'll do computers 49. I like models 50. Building Legos is so awesome and kooky 51. We have awesome models 52. Those models look cool 53. I love models 54. This is a picture of a police car 55. I'm building this today 56. You're building an airplane</p>	
11/16	<p>57. We have no school tomorrow 58. Your Legos look cool and kooky 59. Look, it's a picture of a car 60. These models are so much fun 61. Look at my model 62. We build models everyday 63. You wear glasses everyday 64. First, we do Legos, then we go home 65. I'm working for Coke 66. Models are cool 67. I love your models</p>	67
11/19	<p>68. Your Legos look neat 69. I like building Legos with you 70. Ollie's not here today 71. I'm working for root beer 72. I'm building Legos with just you today 73. You're working for soda like me today 74. That police car is going fast 75. Look, it went on your arm 76. Ollie's at home 77. I liked building Legos today</p>	77
11/20	<p>78. This is a funny model 79. Models are cool to build 80. Check out my model 81. Models are kooky 82. Those pieces are missing 83. No computers today 84. We'll go home after iPads 85. This is a picture of a bulldozer</p>	85
11/26	<p>86. I'm gonna do a new model 87. Are we doing computers today instead? 88. Look, it's a picture of an airplane 89. No iPads today 90. I got Pepsi 91. I'm working for more soda sips</p>	91
11/27	<p>92. I'm building something new today 93. It's a picture of a fire truck</p>	96

	94. You can see 95. Look, it's a picture of a fire engine 96. I like this picture	
11/28	97. I love Legos 98. This is a really hard model 99. We'll go home after models	99
12/3	100. I'm gonna have a yellow Mike and Ike	100
12/4	101. Whose piece is this? 102. You see that picture of a car? 103. I like snack at school 104. I had that Pepsi 105. You're working for Mike and Ike's 106. We're doing models	106
12/6	107. You're working for Mello Yellow 108. Checking out models is so cool 109. We found this piece	109
12/10	110. Where can I sit?	110
12/19	111. Playing models is so much fun 112. Check out what I'm working for 113. This is the same model 114. I like the model 115. Some of the pieces are missing	115
12/20	116. It's too bad that all of the pieces aren't there 117. You see that picture of a plane? 118. I can't wait for the trip tomorrow 119. My foot's bothering me 120. The gray piece is missing	120
1/7/13	121. We're playing models 122. Check out what I'm playing 123. I'm building models 124. I'm gonna work for chips 125. I like building models 126. I found the piece	126
1/8	127. We're gonna go to the movies tomorrow 128. Some of these yellow pieces are missing 129. I'm working for gummies 130. Building models is so much fun 131. This is a yellow Angry Bird 132. Some of my white pieces are missing	132

Lunch

Scripts: This lunch is so good
 I love my lunch today
 My food looks yummy
 Look what I have today
 We have awesome lunches

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	N/A	0
3/7	N/A	0
3/9	N/A	0
3/13	N/A	0
3/14	N/A	0
3/15	N/A	0
3/19	N/A	0
3/20	N/A	0
3/21	N/A	0
3/22	1. You don't have an Apple Book at home?	1
3/23	N/A	1
3/26	N/A	1
3/27	N/A	1
3/29	N/A	1
3/30	N/A	1
4/9	N/A	1
4/10	N/A	1
4/11	N/A	1
4/16	N/A	1
4/17	N/A	1
4/18	N/A	1
4/20	N/A	1
4/24	N/A	1
4/25	N/A	1
5/1	2. Look at this	2
5/3	N/A	2
5/7	N/A	2
5/8	N/A	2
5/10	N/A	2
5/14	N/A	2
5/15	3. I'm going to the movies this weekend	3
5/16	N/A	3
5/17	N/A	3
5/21	N/A	3
5/22	N/A	3

5/23	4. It's a cucumber	4
5/29	N/A	4
5/30	N/A	4
5/31	N/A	4
6/1	5. How's your rice?	5
6/5	6. Cool pasta 7. This chicken rice is good	7
6/6	8. How's your pasta?	8
6/11	9. Cool rice	9
7/9	N/A	9
7/10	N/A	9
7/11	10. How's your lunch?	10
7/12	N/A	10
7/16	N/A	10
7/17	11. Cool mac and cheese	11
7/18	N/A	11
7/20	N/A	11
7/23	12. How is your mac and cheese?	12
7/24	N/A	12
7/25	13. Cool mushroom	13
7/26	14. How's your spaghetti? 15. Cool spaghetti 16. You like your pasta? 17. You like your spaghetti?	17
7/27	18. Cool meat, carrots, and rice 19. Cool chicken and rice	19
7/30	N/A	19
8/6	20. Cool noodles	20
8/7	N/A	20
8/8	N/A	20
8/9	N/A	20
8/10	21. Cool rice, shrimp, and broccoli 22. How is your rice, shrimp, and broccoli? 23. How is your rice, chicken, and broccoli? 24. It's like the cheeseball song 25. I like eating lunch	25
8/13	26. How is your pizza? 27. Cool lunch	27
9/6	N/A	27
9/7	N/A	27
9/10	N/A	27
9/11	N/A	27
9/12	N/A	27
9/13	N/A	27
9/17	N/A	27

9/18	N/A	27
Teaching		
9/19	28. Lunch is good 29. I think we have good lunches	29
9/20	30. Look what I have for lunch today	30
9/24	N/A	30
9/25	31. My food looks good	31
9/26	N/A	31
9/27	32. I love eating lunch 33. Cool pizza 34. I like having lunch	34
10/1	35. Cool sandwich 36. How's your sandwich?	36
10/2	37. Cool chicken, rice, and mushrooms 38. I like playing on computer after lunch 39. I'm eating lunch 40. I eat lunch at school	40
10/3	41. I like my lunch today	41
10/4	42. Look, it's Yoshi 43. This is a star 44. Nick is here 45. I like eating lunch at school 46. We're eating lunch	
10/9	47. This lunch sounds good	47
10/11	48. Do you like your sandwich?	48
10/12	49. What are you eating? 50. Cool hotdog 51. My lunch looks good 52. How's your crackers? 53. How was your hotdog?	53
10/15	54. We have lunch at school	54
10/16	55. Cool pasta that has meat and vegetables 56. I love your pasta 57. You're eating corn 58. How's your food? 59. What are you eating for lunch? 60. What are you eating pasta with? 61. You're gonna beat the timer and get dessert 62. What's right there? 63. You're still eating pasta 64. We eat lunch together 65. Where do we eat lunch? 66. You're eating pasta with meat and vegetables 67. Are you okay? 68. Where do you eat lunch in school?	68
10/17	69. I like your rice	72

	70. Do you eat rice for lunch? 71. I'm eating a sandwich 72. Are you finishing your rice with meat and egg?	
10/18	73. Cool rice, I love it 74. I like your sandwich 75. Your sandwich looks cool 76. We have kooky lunches 77. I love your sandwich, it looks good 78. C is for Coke and chips 79. I love your rice 80. I like your broccoli	80
10/19	81. I like your pizza 82. I love your pizza 83. I love having lunch at school 84. What did you have today?	84
10/22	85. I like Ollie's rice, chicken, and broccoli 86. I like what you're eating	86
10/23	87. How's your hotdog? 88. I like your hotdog	88
10/26	89. Do you like your pizza? 90. You like my bagel? 91. My bagel looks good 92. I still have some Coke left 93. I crossed out Coke 94. Eating lunch at school is so good 95. What can we do for you? 96. Look, I really like my lunch	96
11/5	97. I love my food today 98. Look, this lunch is so good 99. Look what I'm working for, it's Cheese Doodles	99
11/6	100. How's your cream cheese sandwich?	100
11/8	101. I like your pasta 102. I like talking about lunch 103. I'm working for another bite	103
11/9	104. You're working for root beer 105. And you're working for cars 106. I'm drinking out of the can today 107. Look at what I'm drinking out of	107
11/13	108. That's your Coke, and that's my Coke 109. You're eating a cream cheese sandwich 110. Is lunch good? 111. Are you still eating your rice?	111
11/14	112. Look at what I'm working for today 113. I'm working for popcorn today 114. I'm gonna get popcorn today 115. There's a juicebox there	118

	116. You're working for Coke, and I'm working for Pepsi 117. Mario eats lunch 118. I have a timer like you	
11/16	119. I loved my sandwich 120. Three more checks left 121. You're almost done with your rice 122. I'll do computer after lunch 123. We're eating bugs 124. I love soda after lunch 125. I'm eating a bar	125
11/19	126. This is a very good lunch 127. I'm working for root beer today at lunch 128. You're working for Dr. Pepper 129. My sandwich looks good 130. Lunch is so great 131. I have 19 more checks 132. Your rice looks good 133. Cool pineapple 134. What's for dessert today? 135. You're eating pineapple for dessert today 136. I loved that root beer, it was so sweet	136
11/20	137. This food tastes great 138. You'll eat your pineapple after lunch 139. I like your rice, it's good 140. I still have some soda left 141. My lunch tastes kooky 142. I'm working for cream soda at lunch 143. You have dessert after your lunch?	143
11/21	N/A	143
11/26	144. You guys have awesome lunches	144
11/27	145. You're so hungry today 146. Your pizza looks good 147. Check out what I have today	147
11/29	148. What are you having today? 149. What are you eating today? 150. What are you working for? 151. We have cool lunches 152. I got soda 153. Eat your pasta 154. My sandwich tastes good	154
11/30	155. I'm working for Oreos today 156. Check out what I'm eating	156
12/3	157. I hear someone 158. Is this your orange? 159. How was your mac and cheese? 160. Are you still eating your pasta?	160

12/4	161. I hear someone crying 162. Remember when I said, "Don't call Dr. Pepper?" 163. Cool rice, chicken, and Dr. Pepper 164. I'm gonna play computer after lunch 165. It's C for Charlie	165
12/6	166. Cool soda 167. You're eating rice with meat in it 168. Do you eat rice for lunch everyday? 169. Do you like foods for lunch?	169
12/7	N/A	169
12/10	170. Cool pasta with mushroom 171. I'm working for chips	171
12/11	172. Some of my food is hot	172
12/12	173. My food tastes cheesy 174. I only have six checks left	174
12/13	175. Some of my food is missing 176. I like this lunch 177. Some of my other food is missing 178. My food doesn't taste hot 179. I'm eating an apple, too 180. You're eating apple like me 181. I'm working for cookies today 182. My teeth hurt	182
12/19	183. Look, I ate the dino's head 184. I'm working for doughnut 185. Some food is missing from the plate 186. You like Mello Yellow	186
12/20	187. I'm eating burgers and fries 188. Lunch time is my favorite 189. What do you have for dessert today? 190. This potato turned into French fries 191. My hamburger tasted spicy 192. Lunch is not yucky 193. Some of my food tastes hot	193
1/2/13	194. Some of my food is crunchy 195. Look at my finger 196. What's so funny?	196
1/10	197. I'm working for this 198. I'm working for soda	198

Ian – Novel Initiations – Across Novel Stimuli**Laptop**

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	N/A	0
3/7	N/A	0
3/8	1. Look, it's swimming	1
3/9	N/A	1
3/16	N/A	1
3/21	2. Look at this	2
3/23	3. Cool Glow Draw 4. Hey that's wrong	4
3/28	N/A	4
4/9	N/A	4
4/17	N/A	4
5/7	5. Look at my friends 6. I'm watching Cars 2 7. It's a plastic steak 8. Check it out, it's noodles	8
5/21	9. Can he swim with grape juice? 10. Look he's cheesy 11. Look, he's happy 12. Look, he's sad	12
5/31	13. I won!	13
7/13	N/A	13
Scripts Introduced with Training Stimuli		
7/26	N/A	13
7/27	14. Look at my game 15. Look, I did it 16. I love iPad games 17. I did it again, look 18. I'm trying to make it get to the fog	18
7/30	19. I like playing iPad games 20. This is hard 21. I'm playing Six Towers	21
7/31	22. I'm drawing numbers, look 23. I like this game 24. That's a lot of numbers, look	24
8/7	25. Look at what I'm playing 26. Look, I won again	26
8/9	27. iPad games are really cool 28. I can't go there	28
8/10	29. Look, I got it	29

9/10	N/A	29
9/14	30. Look at his head	30
9/18	31. This is a very good game 32. It's not working 33. That's a duck 34. It's a lot of ducks 35. This level is hard 36. It's hard to get a lot of ducks 37. I love this game	37
9/26	38. This is a really awesome game 39. I love playing games 40. This is a really cool game 41. I can't get the stars	41
10/4	42. What are you playing? 43. I can't win 44. I can't win this game	44
10/18	45. I like playing on the computer 46. Playing iPad is so much fun 47. iPad is so cool 48. We have awesome iPads 49. We have awesome games on the iPad 50. This is a really great game 51. I like your game 52. This game is tough 53. There's no internet here	53
10/24	54. I love movies on iPad 55. Do we have games on iPad? 56. I'm drawing 57. I have SpongeBob on my iPad 58. Look at what I'm working for, it's Coke 59. Look, it's SpongeBob 60. Who am I drawing? 61. Look what I'm drawing 62. Who is that? 63. Look, what did I draw? 64. This is a picture of Jimmy Neutron	64
10/26	65. I like what you're playing 66. Remember when I saw the pictures on the computer? 67. I'm gonna work for cupcake 68. I like this game today 69. This is a candy corn cupcake	69
11/5	70. I lost 71. Sam lost his shell 72. This is a picture of Bugdom 73. I'm trying to lift the bar 74. Isn't this hard?	75

	75. He's flying	
11/13	76. Look, I'm working for Coke sips 77. Look at what I'm drawing, it's toy bots 78. I'm drawing Timmy Turner 79. I'm gonna draw Jimmy Neutron 80. I'm drawing SpongeBob	80
11/20	81. We have no internet here 82. Check out what I'm building 83. Now check out this 84. Look, this is a picture of a tower 85. Stop staring at it 86. I did it, I won!	86
11/26	87. Look, Jimmy's a robot 88. Look, it's a picture of Jimmy Neutron 89. Why aren't you playing Cut the Rope? 90. You love Cut the Rope, don't you? 91. You're playing the wrong game 92. Play Cut the Rope 93. Look at what I drew, it's Jimmy Neutron and Timmy Turner	93
11/30	94. Look at this frog 95. Check out what I'm watching 96. Can I play Where's My Water? 97. What can we do for you today? 98. I'm working for the new popcorn 99. I always wanted to buy that 100. Look at that	100
12/4	101. Something's bothering me 102. My stomach's bothering me 103. This is a really good game 104. I'm working for Pepsi 105. Check out what I'm working for 106. That's good soda 107. That was Chinese 108. That was the funniest thing 109. Remember when you drew Chinese?	109
12/13	110. Check out what I'm playing 111. This is Frankenweenie, cool	111
12/20	112. Angry Birds are happy 113. You can see 114. What are you doing? 115. Check out those Angry Birds, they're happy 116. Look, it's a picture of a fishy 117. Pepsi is good 118. The dragon ate the fish	118
1/2/13	119. Look, that's a face 120. I'm gonna draw Chuckie and Tommy	129

	121. Look, this is Chuckie 122. Tommy's tooth has not grown in yet 123. Look, this is Tommy and Chuckie 124. Look, it's Dyl 125. Look, this is Phil and Lil 126. I'm drawing this picture like Chris 127. Look, it's Angelica and Susie 128. Look, a heart 129. Look, a triangle	
1/7	130. Which level can we play today? 131. Which level can we choose now? 132. Which level do we get to do today?	132
1/10	133. That's Where's my Perry, I mean Frankenweenie	133
1/15	134. I can't wait for my 7Up 135. 7Up, I'm working for that	135
1/23	136. This is not the same 137. This is different 138. This is not the same Six Towers 139. I'm working for this again 140. What color is your shirt? 141. This tower's red, like my shirt	141

Model Building

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	N/A	0
3/9	N/A	0
3/19	N/A	0
3/23	N/A	0
3/27	N/A	0
4/18	N/A	0
5/16	1. What is that? 2. Is that a tow truck?	2
5/29	N/A	2
7/10	N/A	2
7/26	3. What kind of vehicle is this? 4. Look at what I'm building	4
7/27	5. Look at my car 6. Look at my model 7. This is a cool car 8. You like my model? 9. It's going vroom, vroom 10. I built my car	10
7/31	11. Check out my model	12

	12. I love Legos	
8/8	N/A	12
9/10	N/A	12
9/18	N/A	12
9/26	13. I like building Legos 14. Cool car 15. I made that tow truck 16. Look at what I made	16
10/10	N/A	16
10/17	17. I love building Legos	17
10/22	N/A	17
11/6	N/A	17
11/9	N/A	17
	Scripts Introduced with Teaching Stimuli	
11/15	18. Look at what I'm building, I'm taking the pieces apart 19. Building Legos is so much fun 20. We'll go home after we build Legos 21. Look what I'm working for 22. This is a really cool model 23. I like building models 24. What's new? 25. Some of the pieces are missing 26. I like your model 27. I like your bulldozer 28. I like your racecar 29. I'm building Legos	29
11/21	30. This is a picture of a car 31. Look, it's a picture of a car 32. Models are so much fun	32
11/28	33. This is a picture of a wheel 34. Your models look cool and kooky 35. What are you building today? 36. I'm working for soda 37. We need that model 38. This is a cool wheel 39. This is a cool building model 40. I like building Legos at school	40
12/5	41. I'm building a flatbed today	41
12/14	42. I'm building a yam 43. We have awesome models 44. I'm really sick 45. I'm working for cookies	45
12/21	46. Where are the pieces? 47. I can hear someone crying 48. I'm working for Pepsi again 49. Building models is so much fun	50

	50. Check out what I built	
1/3/13	51. We're building Legos 52. We're building models 53. Look at this one	53
1/10	54. The other piece is missing 55. Yours is a truck and mine is a bulldozer 56. Chris is drawing Rugrats 57. Some of the black pieces are missing	57
1/24	58. I like drinking Coke 59. Who has models? 60. Who's building a flatbed? 61. Who's building a racecar? 62. Some of those red pieces are missing 63. Ollie likes to talk about numbers 64. I'm working for Coke 65. Whose yellow pieces are these? 66. This is a fire truck 67. The piece fell off 68. I'm working for regular Coke 69. Those are my yellow pieces 70. The white piece is missing 71. I'm gonna work for more Coke	71

Lunch

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/8/12	N/A	0
3/9	N/A	0
3/12	1. What soda is this? 2. What's up, Aiden?	2
3/16	N/A	2
3/28	N/A	2
4/19	N/A	2
4/26	N/A	2
5/2	N/A	2
5/9	N/A	2
5/31	N/A	2
7/13	N/A	2
7/19	N/A	2
7/30	N/A	2
8/2	3. Cool MacDonald's 4. I like your burger	4
8/15	N/A	4
9/17	N/A	4

	Scripts Introduced with Training Stimuli	
9/21	5. Cool burger 6. Are you okay? 7. Cool fries	7
9/28	8. Cool pizza 9. We're having pizza 10. I like having pizza parties 11. Pizza parties are really cool 12. We'll eat pizza at the Halloween party 13. How is your pizza? 14. There's grease on the pizza 15. Pizza parties are really good	15
10/10	16. I love eating pizza	16
10/19	17. I like having ice cream 18. I love ice cream 19. We're having vanilla ice cream 20. We have awesome ice cream 21. I like Dunkin Donuts so we can get ice cream 22. I like your ice cream 23. Eating ice cream is so good 24. I like getting stuff at Dunkin Donuts	24
10/25	25. How's your French fries? 26. I like MacDonald's 27. Look what I have today 28. We have awesome MacDonald's 29. Look what I'm eating today 30. We have awesome lunches 31. My MacDonald's food looks good 32. I like what you're eating today 33. Do you eat MacDonald's? 34. Do you like what I'm eating? 35. This lunch is good 36. I like my MacDonald's food 37. How's your hamburger? 38. Look at what I'm eating 39. I like my MacDonald's lunch 40. We're having MacDonald's for lunch 41. I like my lunch today 42. My burger was good 43. My French fries look good 44. I love my lunch today 45. Potatoes come into French fries	45
11/7	46. I love your pizza 47. We have awesome pizza 48. My pizza looks good 49. Look at what I'm working for	49

11/15	50. Look at what we're eating 51. What are we eating today? 52. This is good pizza 53. Andy tries new foods 54. Look at what we're having 55. Eating lunch is so good 56. I'm getting one more check 57. I'll play Wii after lunch	57
11/21	58. We don't blow on ice cream 59. What kind of ice cream are you eating? 60. This is really good ice cream 61. I love having ice cream at school 62. We're having ice cream today 63. I'm eating vanilla and chocolate ice cream 64. The ice cream is melting 65. I have eight more checks	65
11/28	66. Look, it says pizza 67. This is a really good lunch 68. Look what we're eating today 69. Check out what we're eating today 70. I like your pizza 71. Check out what I'm working for today 72. I have one more check to go 73. Lunch is so cool 74. I like having lunch at school	74
12/5	75. Look, it's Jack Frost 76. What's wrong? 77. I'm working for orange soda today 78. I finished my lunch	78
12/14	79. My food tastes hot 80. My pizza looks cool and kooky 81. Sometimes pizza has tomatoes and mushrooms on there	81
1/4/13	82. It's strawberry, vanilla, and chocolate 83. Some of my ice cream tastes cold 84. I'm working for Pepsi 85. My ice cream tastes yummy 86. Chocolate ice cream makes me cough 87. Some of my ice cream melted 88. Ice cream is so good, but the chocolate is dark and makes me cough 89. I'm gonna get Pepsi	89
1/9	90. My hamburger is hot 91. You don't like pickles? 92. Some of my MacDonald's food tastes hot 93. What are you working for? 94. Some of my water tastes cold	

	95. I'm eating two burgers and fries now 96. We have awesome MacDonald's food	
1/18	97. You don't like strawberry ice cream? 98. You're eating a good ice cream 99. My ice cream is fresh 100. This is like coffee 101. That's orange, vanilla, and pink 102. My ice cream is good	102

Ian – Novel Initiations – Across Novel Setting

Laptop

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
	Baseline	
3/9/12	N/A	0
3/16	N/A	0
3/30	1. Can I change my friend?	1
4/20	2. Look at Lightning McQueen 3. That's Sheen's friend, Jimmy Neutron 4. She's crawling like a baby 5. Look at Sheen	5
5/5	N/A	5
5/19	N/A	5
5/26	6. Hey, there's two, look	6
6/5	7. Look, where's his glasses?	7
7/10	8. Hey, is that my foot?	8
	Scripts Introduced with Training Stimuli at School	
7/30	9. Look at my game 10. I like playing computer games 11. I did it, look! 12. Look, I won again 13. I like this game 14. Look, I did it again 15. I love computer games 16. Look, I lost 17. We're playing computer	17
8/3	18. Look at what I'm playing 19. This is hard	19
8/14	20. Are those potato heads? 21. I have two hands, look 22. Look at Trifinnebula 23. Looks like birdie wings 24. Am I a plantain? 25. Look at my picture	32

	<p>26. I have hair, look 27. I look funny 28. I have two chins, look 29. Look, I'm a potato 30. Am I a carrot? 31. Am I happy? 32. Look, I'm hiding my face</p>	
9/10	<p>33. I saw the Annoying Orange 34. This apple is mad 35. What are you playing?</p>	35
9/22	<p>36. Look what I'm playing, Bubble Bounce 37. It's Rex 38. Cool video 39. This is a really cool game 40. I need three 41. I see a new Toy Story game 42. I'm playing a different Toy Story game 43. This is a lot of bubbles</p>	43
9/29	<p>44. Look, it's a ball 45. I really like this game 46. Look, my thing is too hard 47. My thing's going too slow 48. Look, I got Jesse 49. Look, I got this ball again</p>	49
10/4	<p>50. This is a really fun game 51. I love playing computer games 52. Lightning McQueen is hard 53. I'm really good at this game</p>	53
10/15	<p>54. A star, a lobster, and a dolphin, look 55. What am I playing? 56. It's a ducky 57. Is this a ducky? 58. I like playing different Toy Story games on Disney 59. It's a fishy, look 60. This is a really awesome game 61. Look, there's too much water 62. Just like in the movie, look 63. Look, Bonnie was in the bath 64. I love this game</p>	64
11/10	<p>65. Look, this is a really cool picture 66. Look, it's a picture of Lego Star Wars 67. Look at what I'm working for 68. Look, it's a picture of you 69. Look, I'm making a funny face 70. Look, this is blue, black, and white 71. Look, it's a picture of me, it's funny</p>	76

	72. I saw a picture of lights 73. Look, I took four pictures at the same time 74. Look, I'm pointing my finger at the camera 75. Look, four Ians 76. Look, I took this one first	
11/21	77. Check out what I'm playing 78. I'm working for Mike and Ike's 79. Check out what I'm taking 80. This is a really nice picture 81. It's squeeze eye, look! 82. That's a lot of photos, look	82
11/30	83. I'm gonna do this game now 84. I have one more yes left 85. We got internet back on	85
12/15	86. It's scratched up 87. Remember when it scratched up? 88. Check out what I'm working for 89. I can't get out the door 90. I can't get the jellyfish 91. SpongeBob versus Plankton, look	91

Model Building

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/9/12	N/A	0
3/16	N/A	0
3/30	N/A	0
4/20	1. Look at this I made	1
5/19	N/A	1
5/26	N/A	1
6/5	2. We're building Legos	2
7/10	N/A	2
7/30	3. Look at my police car 4. Look at what I'm building 5. Do you like my police car?	5
8/3	6. Look at it, it's moving on the side	6
8/14	N/A	6
9/10	N/A	6
9/22	N/A	6
9/29	7. Cool fire engine 8. I like building Legos 9. I'm a really good builder	9
10/4	10. I'm taking it apart 11. We're building models	11

10/15	N/A	11
11/10	N/A	11
Scripts Introduced with Training Stimuli at School		
11/21	12. What are we doing? 13. Check out what I'm working for, it's Mike and Ike's 14. Check out what I'm building, it's a car 15. This is a really cool model 16. Look, it's a picture of a car 17. We're building Legos 18. I got one more check left 19. Those pieces are not in there 20. I love this model 21. I like this model	21
11/30	22. I'm gonna build this one 23. I have one more yes left 24. I got an orange one 25. Mario has a brother 26. You build models with me 27. I'm working for the Zour Mike and Ike's now 28. I only have two yeses left 29. Building Legos is so much fun 30. Alison is going to come to Aiden's house tomorrow	30
12/15	31. I'm working for the orange Mike and Ike 32. Models are cool 33. What's that sound? 34. We have awesome models	34

Lunch

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/9/12	N/A	0
3/16	1. Stop it	1
3/30	N/A	1
4/20	N/A	1
5/5	N/A	1
5/19	N/A	1
5/26	N/A	1
6/5	2. This one is good	2
7/10	3. Hey, it's Woody	3
7/30	4. We're having snack 5. I'm eating chips 6. Look at what I'm eating	6
8/3	7. We are having dinner 8. Who has beans and chicken?	9

	9. I like eating dinner	
8/14	10. You're so sweet 11. What's happening?	11
9/10	N/A	11
	Scripts Introduced with Training Stimuli at School	
9/22	N/A	11
9/29	12. Cool celery sticks 13. How's your hot dog? 14. I like having dinner 15. Are you okay? 16. I'm eating crackers 17. I love having dinner	17
10/4	18. The food looks good 19. How are your cheese balls and Mike and Ike's? 20. I love eating snacks 21. I like having snack 22. How was your sandwich? 23. What are you eating? 24. What are you doing? 25. How was your pears? 26. You like your cheese balls? 27. You're silly	27
10/15	28. Do you like your Mike and Ike's? 29. I like my cheese balls 30. My cheese balls sound good 31. I love chips 32. There's a giant baby 33. Stop sticking your tongue out	33
11/10	34. We have awesome foods 35. This is a really cool snack 36. This soup is really good 37. Stop stealing it 38. Look at what I have today 39. Look, it's hot 40. Look at what I'm eating 41. This is really good oatmeal 42. Look at what I'm working for now, it's Zours 43. You don't chew like this 44. Look, it's not steaming anymore 45. Look at this, it's steaming	45
11/21	46. This is a really good snack 47. Check out what I'm eating 48. I have one more check to go 49. I love having snack here 50. This is really good yogurt	50
11/30	51. This is your drink	58

	52. I dipped the popcorn in the peanut butter 53. You got waffles and I got celery 54. Look at me 55. This is a mummy ring toss 56. Which Mike and Ike do you want, the blue on or purple one? 57. Those are really cool bananas 58. It's a banana	
12/15	59. We're having a cool snack 60. Check out what I'm working for 61. This is a really cool pizza 62. Excuse me, I burped 63. We have awesome snacks 64. I'm gonna get the yellow Zour 65. Can you please stop? 66. Stop eating like that 67. I'm getting a check	67

Aiden – Novel Initiations

Laptop

Scripts: I love playing on computers
Computer games are so fun
This game is awesome
Look at what I'm playing
Check out this game

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	1. I'm playing Nickelodeon	1
3/7	N/A	1
3/8	N/A	1
3/9	2. What's the matter?	2
3/14	3. Look at my face	3
3/16	N/A	3
3/20	N/A	3
3/22	N/A	3
3/28	N/A	3
3/29	4. Can you go?	4
4/11	N/A	4
4/30	N/A	4
5/21	N/A	4
6/5	N/A	4
6/11	5. You're stepping on my shoelace	5
7/5	N/A	5
7/6	N/A	5

7/9	N/A	5
7/10	N/A	5
Teaching		
7/12	N/A	5
7/13	N/A	5
7/16	N/A	5
7/17	N/A	5
7/18	6. This is a picture of Mario	6
7/20	N/A	6
7/23	N/A	6
7/24	N/A	6
7/25	7. I love this game 8. The computer is great	8
7/27	9. Look at this game	9
7/30	10. Computer games are so awesome 11. Playing on computers is so fun	11
7/31	12. This is too hard 13. This game is so fun 14. Look at this game, it's really tough 15. I can't win, it's too hard	15
8/1	16. I lost the game	16
8/6	17. I really like this game 18. I really like computers 19. I like playing on computers 20. It's nice to play games 21. It's okay to play games	21
8/8	22. I'm almost winning	22
8/9	23. I won 24. I have lost four times 25. This is really hard	25
8/10	N/A	25
8/13	N/A	25
8/14	26. This has 625 27. 625 is still hungry	27
9/6	N/A	27
9/7	28. This is hard to win	28
9/11	29. It's a plane	29
9/12	30. There's no webpage 31. It's loading	31
9/13	32. I keep losing 33. Check it out, I won	33
9/19	34. Cool game 35. My game is so much fun	35
9/21	N/A	35
9/24	N/A	35

9/25	36. Elmo's sleeping 37. Look, it's a Facebook 38. It's jam season 39. It's the website	39
9/28	40. I got game over 41. I'm always losing	41
10/5	42. My game looks cool 43. I love playing on games 44. I'm almost running out of time 45. I matched it 46. It's a turtle	46
10/11	47. Look, it's Perry 48. Can I play this game? 49. Your computer looks cool 50. Look, it's Frankenweenie	50
10/12	51. Look, it's tomato sauce 52. Look, they're staring 53. I hear someone crying 54. The pizza's in there 55. Time is running off	55
10/15	56. Look, it's the blue light 57. Look, it's Agent P 58. I always get zapped 59. I need to watch out for lasers	59
10/16	60. There's no steps 61. There's a red light and a green light 62. Are you okay to play computers today? 63. Are you fine to play computers? 64. If I see a red light, I don't go, when I see a green light, I go 65. Those red lights are signals 66. I'm playing Mix It Up 67. Look, it's a fish 68. It's Roly Poly Roundup	68
10/23	69. I love Pizza Perfect 70. It's barbecue sauce	70
11/6	71. The battery is getting lower 72. The trolley is going 73. I'm earning cream soda 74. The jewelries are going round and round	74
11/7	75. Look at those 76. It's Take That 77. Look, it's her hair 78. It didn't work	78
11/15	79. Doing computers is so cool 80. I cannot see 81. It's a gallery	82

	82. We'll do iPad after computer	
11/19	83. Ooo, there are three holes 84. Look, there are three holes and each has a starfish in it 85. There are three tunnels 86. We need to go to a hole next to the blue fish 87. Yikes, I don't want to go that way 88. Check out what I'm playing	88
11/27	89. The dinos need to sit nice 90. It's a train 91. Look at the seats	91
11/29	92. It's bugs 93. My soda spilled on the floor 94. I'm catching the bugs 95. Those are bugs	95
12/3	96. I almost made it 97. This is really frustrating 98. It's too hard to win the game 99. My game looks really hard 100. I keep losing everyday 101. Oh no, if I don't win my game, it will get ruined 102. I keep getting eaten by a mushroom 103. I don't like to lose every game 104. When you lose one game, you can say "I'll try again"	104
12/5	105. If I press the button, I go up 106. Those are barrels 107. The pizza's heated up 108. Those are pineapples 109. I always lose games	109
12/11	110. When it's loading, I can't play 111. It's frozen, I can't play right now 112. I never play new games	112
12/12	113. If I lose, the monster truck will be ruined 114. They're fighting around 115. It's getting really red 116. I got to a new one	116
12/19	117. What's that brown stuff? 118. Dogs on ice 119. Check out what I'm building 120. It's rolling 121. It's a black horse	121
12/21	122. Look at Luigi 123. I lose all my lives	123

Model Building

Scripts: I love building these models

Watch what I'm building

Look at my model

Legos are so much fun

Our Legos are cool

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	N/A	0
3/8	N/A	0
3/12	N/A	0
3/15	N/A	0
3/16	N/A	0
3/22	N/A	0
3/26	1. What's the matter?	1
4/10	N/A	1
4/11	N/A	1
4/19	N/A	1
4/20	N/A	1
5/1	N/A	1
5/21	2. Can I make it go onto you?	2
5/23	N/A	2
6/5	N/A	2
7/9	N/A	2
7/26	3. Legos are so fun 4. Check out what I'm building 5. Check out this Lego	5
7/27	N/A	5
7/31	N/A	5
8/1	6. Building Legos is so much fun	6
8/7	N/A	6
8/13	7. Check it out, it's going on you	7
9/7	N/A	7
9/12	N/A	7
9/14	N/A	7
9/17	N/A	7
9/20	N/A	7
9/25	8. I love building Legos	8
9/27	N/A	8
10/2	9. I made an airplane 10. Are you okay?	10
10/3	N/A	10
10/4	N/A	10
10/5	11. Your model looks cool	11

10/9	N/A	11
10/10	N/A	11
10/11	N/A	11
10/12	N/A	11
Teaching		
10/15	12. How's your Pepsi? 13. Look at what I'm building 14. My pieces are missing	14
10/16	15. My model paper is wet 16. Look at my Legos 17. We'll play computer after Legos	17
10/17	18. What's so funny?	18
10/18	19. We'll play iPad after Legos	19
10/22	20. Playing Legos is so much fun 21. I love building these Legos, don't you boys? 22. I love building Legos, do you think they'll turn us into toys? 23. Excellent, I love building the Lego piece 24. Look at the tire 25. Look, it's a super stack of wheels 26. I can't wait to build Legos 27. I'm gonna build Legos at home 28. My Legos are missing 29. Your Lego looks cool and fun 30. You built a car 31. There are two stacks of Mike and Ike's	31
10/23	32. Good building your Legos 33. Do you like to build Legos? 34. I'm going to get soda 35. You'll get Mike and Ike's 36. Look, I'm covering something 37. When it's 2:55, we'll be all done boys 38. I'm working for root beer 39. Look at my finger, check it out 40. You built an airplane	40
11/5	41. Your Lego looks like a fire engine 42. You're working for Mike and Ike's 43. Your chips are really orange 44. We have to build quickly 45. You're good at building Legos 46. There's a piece in my shoe 47. We're missing all of them 48. Oh, it's the oil 49. Can I borrow your piece?	49
11/7	50. My feet need to pass 51. You stepped on my shoe again	53

	52. Doing models is so much fun 53. Doing models is so cool	
11/8	54. Your model looks like a police car 55. Your hair has a lot of dirt on it	55
11/13	56. We'll do iPad after models	56
11/14	57. Check it out, I made it	57
11/16	58. Your model looks like a helicopter 59. Your building looks cool 60. You're building a car 61. You're building a helicopter 62. Watch me, what I'm building	62
11/19	63. I'm missing that small piece 64. I hear someone jumping 65. I'm not working for root beer, I'm working for Dr. Pepper 66. Your model looks very nice 67. My soda is bubbly	67
11/20	68. Check out my model 69. Your model looks kooky 70. I can use this instead 71. Root beer is just like cream soda	71
11/26	72. Some of the pieces are missing	72
11/27	73. It's a house 74. Check out what I'm playing 75. Your breath smells like Mike and Ike's 76. I made a helicopter	76
11/28	77. This piece is found 78. Missing pieces is very frustrating 79. Katie always jumps	79
12/3	80. I'm missing some black pieces 81. I'm missing the blue piece	81
12/4	82. One of your pieces is missing 83. Cool Mike and Ike 84. I hear Ida crying 85. I'm missing the big white piece 86. What are you doing? 87. I'm missing the yellow pieces	87
12/6	88. All of the pieces are missing 89. Your model looks cool and kooky 90. What model are you building? 91. I'm always missing pieces	91
12/10	92. Check out what I'm making 93. I'm missing that medium piece 94. Look, there's pieces 95. The black piece and the gray piece is missing 96. I'm still up to the seven spot and the black piece is	96

	missing	
12/19	97. Some of my models are healthy to build 98. What about the other piece?	98
12/20	99. The white and black piece is missing 100. What's going on with my piece?	100
1/7/13	101. If I'm missing a piece, I don't need to go crazy, I can skip it 102. The tire piece is missing 103. What about the tire piece?	103
1/8	104. The two yellow pieces are missing 105. Some of the pieces are found 106. Some of the wing pieces are missing 107. Some of the little pieces are missing 108. Some of the other pieces are missing	108

Lunch

Scripts: I'm so hungry today
 This lunch is awesome
 My food tastes great
 Look what I have today
 That food looks really good

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	N/A	0
3/7	N/A	0
3/9	N/A	0
3/13	N/A	0
3/14	N/A	0
3/15	N/A	0
3/19	N/A	0
3/20	N/A	0
3/21	N/A	0
3/22	N/A	0
3/23	N/A	0
3/26	N/A	0
3/27	N/A	0
3/29	1. You can't drink my water	1
3/30	N/A	1
4/9	N/A	1
4/10	N/A	1
4/11	N/A	1
4/12	N/A	1
4/13	N/A	1
4/16	N/A	1

4/17	N/A	1
4/18	N/A	1
4/20	N/A	1
4/24	N/A	1
4/25	2. It looks like a rainbow	2
4/30	N/A	2
5/1	N/A	2
5/3	N/A	2
5/7	3. We both have strawberries	3
5/8	N/A	3
5/10	N/A	3
5/14	N/A	3
5/15	4. On Thursday, I'm going on the Alley Pond trip 5. Look, there's a Pepsi on it 6. What are you eating?	6
5/16	N/A	6
5/17	N/A	6
5/21	N/A	6
5/22	N/A	6
5/23	N/A	6
5/29	N/A	6
5/30	N/A	6
5/31	N/A	6
6/1	N/A	6
6/5	N/A	6
6/6	7. How's your pizza?	7
6/11	N/A	7
7/6	N/A	7
7/9	N/A	7
7/10	N/A	7
7/12	N/A	7
7/16	N/A	7
7/17	N/A	7
7/20	N/A	7
7/23	N/A	7
7/24	N/A	7
7/25	N/A	7
7/26	N/A	7
7/27	8. Do you have a cold?	8
7/30	N/A	8
8/1	N/A	8
8/6	N/A	8
8/7	N/A	8
8/8	N/A	8
8/9	9. How's your peanut butter and jelly?	9

8/10	N/A	9
8/13	10. Cool bread 11. Cool chips	11
9/6	N/A	11
9/7	N/A	11
9/10	N/A	11
9/11	N/A	11
9/12	12. How are your chips?	12
9/13	N/A	12
9/17	N/A	12
9/18	N/A	12
9/19	13. How's the food?	13
9/20	14. How's your lunch today?	14
9/24	N/A	14
9/25	N/A	14
9/26	15. Having lunch is so cool	15
9/27	N/A	15
10/2	N/A	15
10/3	16. I love eating lunch	16
10/4	17. How's your apple?	17
10/9	18. Are you okay?	18
10/11	N/A	18
10/12	N/A	18
10/15	N/A	18
10/16	19. Cool sandwich	19
10/17	N/A	19
10/18	20. How is your barbecue chips? 21. How is your lunch?	21
10/22	N/A	21
10/23	N/A	21
11/5	22. I also have pineapple in my rice	22
11/6	23. I finished my apple juice	23
11/8	N/A	23
11/9	24. I love your nuts	24
11/13	25. What kind of sandwich did you have?	25
Teaching		
11/14	26. My food tastes very good	26
11/16	27. Look what I'm eating 28. This lunch is really good 29. I'm working for chips 30. Your lunch looks good 31. Your lunch tastes great 32. This lunch is delicious 33. Your lunch looks cool 34. Your lunch looks kooky	38

	35. Your lunch looks like a pizza with lots of tomato sauce 36. My chips have 120 calories 37. I'm drinking lots of water 38. Mike turned off the light	
11/19	39. Look what I have for dessert today 40. Check out what I have today 41. Your lunch looks delicious 42. That food looks good	42
11/20	43. What is that? 44. You'll eat dessert after lunch 45. I'm gonna have my pineapple after lunch 46. What did you have today? 47. Is Ollie there? 48. I like my Chinese food 49. My lunch tastes kooky	49
11/21	50. Check out what I'm eating 51. Look at my lunch 52. Eating lunch is so cool 53. I'm very hungry today 54. I'm going to have dessert after lunch 55. You're going to have a choice after dessert 56. I hear Wii 57. I'm going to have my oranges after 58. I like your apple 59. My food tastes really yummy	59
11/26	60. I have barbecue rice 61. You're like a bumblebee 62. I'm gonna go home after school 63. I love barbecue rice 64. I heard someone playing Wii	64
11/27	65. Christmas is next week 66. My food looks good 67. You have Oreos today 68. My food tastes really good	68
11/29	69. Eating lunch is so much fun 70. My mouth hurts 71. This food is good 72. Your lunch tastes really yummy 73. Your food looks good and kooky 74. I hear someone playing games	74
11/30	75. I think Katie is crying 76. Some of my food is missing 77. That sounds like Gary 78. What is that sound from Module B?	78
12/3	79. My food is really hot 80. My food is good	85

	81. My food looks really hot 82. Mac and cheese tastes delicious 83. What are you doing? 84. My food looks like cheese 85. I'm done	
12/4	86. This food looks like Dr. Pepper 87. Your food looks like a sandwich 88. My food looks very hot 89. I hear someone making noises	89
12/6	90. My garlic is spicy 91. It's gonna be a blackout 92. What happened to the lights? 93. We're wasting energy	93
12/7	94. My food tastes really hot in my mouth 95. Your food tastes cheesy 96. I don't want to eat food that tastes hot in my mouth 97. My food is very spicy 98. We have awesome lunches 99. My heart is beating so fast 100. Your food tastes really cold 101. I hear someone playing Galaxy 102. Check out your fingers	102
12/10	103. Some of my food is hot 104. Your pizza tastes great 105. I like your pizza with tomato sauce 106. My tummy is growling 107. I have no energy left	107
12/11	108. Some of my garlic is really hot 109. Why's Erin crying? 110. Erin doesn't want to eat Starburst 111. Erin's really tired	111
12/12	112. Well, my garlic tastes really hot 113. Your dessert tastes great 114. Your food looks like an applesauce 115. Your food tastes great and kooky 116. Your food tastes like an apple 117. Your food looks like a bread 118. Your food tastes bad and cheesy	118
12/13	119. Some of my food has sauce in it 120. Lunch time is my favorite 121. My tummy has no energy left	121
12/19	122. You ate candy 123. Your food is creepy and dark 124. This tastes so yummy 125. Some of my food is good 126. My food looks Japanese	130

	127. My soda's just like cola 128. My food is so delicious 129. Some of your food is made of juice 130. Your Mike and Ike is sour	
12/20	131. We're gonna make a choice after lunch 132. If I'm hungry, I have no energy left 133. I'm working for soda	133
12/21	134. Some of my Nutella is dark 135. My Nutella tastes chocolate 136. Let's start out lunch 137. Some of my Nutella's missing 138. Some of my Nutella is turning chocolate 139. I have a cold 140. Some of my food is dark 141. What Mike and Ike are you eating? 142. I love going on a trip	142

Aiden – Novel Initiations – Across Novel Stimuli

Laptop

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	N/A	0
3/7	1. I got zero stars 2. Look at that frog	2
3/8	N/A	2
3/9	3. Look at this ball, it's big	3
3/16	4. Why's he crying?	4
3/21	N/A	4
3/23	5. Look at that plane	5
3/28	N/A	5
4/9	N/A	5
4/17	6. Look at this, it's empty	6
5/7	N/A	6
5/21	7. Look he's crying	7
5/31	8. What's so funny?	8
Scripts Introduced with Training Stimuli		
7/13	9. What are we going to do, it's out of batteries	9
7/27	10. Check it out I won	10
7/30	N/A	10
7/31	11. This game is awesome 12. iPad's so fun	12
8/7	13. It's nice to play iPad games 14. Games are so awesome	14

8/10	15. This game is fun 16. Check out this game	16
9/10	17. It's so hard 18. Check it out, you won 19. It's 97 percent 20. I love playing on iPad 21. I lost 22. This game's awesome, I like it 23. Did you get 3 ducks yet?	23
9/14	24. It's a planetarium 25. It's cranky	25
9/18	26. The iPad's cold 27. This game is hard 28. Look at this game	28
9/26	29. Check it out, it's Mystery Duck 30. It's the moons and stars 31. I didn't get a duck	31
10/4	32. I'm gonna win soon	32
10/9	33. I love playing computers 34. I like playing on iPads 35. I love playing on games 36. That's not my root beer	36
10/18	37. I'm drawing chips 38. You won the game 39. Look I'm drawing potato chips 40. It keeps turning into ice 41. There's no internet 42. Look I can't see anything 43. It's frozen 44. What happened to it?	44
10/24	45. Look it's just the rain 46. This game is so much fun 47. I won the game 48. Sharky's crying 49. Swampy wants a bath 50. I need to collect all ducks 51. I probably need to save some water	51
11/5	52. What are you gonna play? 53. I'm touching the towers 54. It didn't work 55. We need to get the towers in order to win	55
11/13	56. No more computers today 57. I'm almost winning 58. I won, this game is beaten 59. It says Module A iPad 60. If I win, I get a bonus score	62

	61. It's done puzzle with 71 moves 62. We're not playing computers anymore	
11/20	63. Look at that frog face 64. I need to get 20 stars to get to the other level 65. I already got 7 stars 66. It's the warning sign	66
11/26	67. Check out what I'm playing 68. Swampy's taking a shower 69. Check out my game 70. It's water 71. Look at Swampy	71
11/30	72. Bugdom was in the sewer 73. Bugdom's drains can lead to the ocean 74. There's seaweed inside 75. I hear someone crying 76. This water's really dirty 77. Look it's a fish 78. I need to get more blueberries 79. Sam the snail was so hungry	79
12/4	80. Mark has a triangle 81. It's Chinese 82. Mark has all the checks	82
12/13	83. This is hard to win 84. What are you doing? 85. Billion of towers	85
12/20	86. Look at this, I got game over 87. The battery is dying 88. If I don't change it the game will be lost 89. You're earning the orange Mike and Ike 90. The dragon ate the fish 91. There's all kinds of food 92. It's the dragon and he wants the fish 93. This red key opens the gate 94. There are all types of food	94
1/7/13	95. Look at that heart 96. I have a heart beating	96
1/23	97. This is not the same 98. I can use my blade 99. Some of my games are missing 100. Some of the water games are missing 101. It's feed with candy 102. That's the girl 103. This is an exclamation point	103

Model Building

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/6/12	N/A	0
3/9	N/A	0
3/19	N/A	0
3/23	N/A	0
3/27	N/A	0
4/16	N/A	0
4/18	N/A	0
5/16	1. Check this out, I made it 2. Look at that	2
5/29	3. It goes onto you	3
7/10	N/A	3
7/26	4. Building Legos is so fun	4
7/27	N/A	4
7/31	N/A	4
8/8	N/A	4
9/10	5. I like this Lego	5
9/18	N/A	5
9/26	6. Cool tow truck	6
10/10	N/A	6
Scripts Introduced with Teaching Stimuli		
10/17	7. Are you okay? 8. My pieces are missing 9. I found it	9
10/22	10. I can't find this piece	10
11/6	11. Your model will come soon 12. Building Legos is so much fun 13. You're very good at building Legos 14. It's super fast 15. Nice holding your Legos 16. I'm almost done	16
11/9	17. Doing models is so much fun 18. Your model looks like a mini digger 19. Your model looks cool 20. Building my model is so much fun 21. I love to do models 22. Your model looks like a bull dozer 23. Your model looks like a car 24. You have to keep building your model 25. I'm almost done building my Legos 26. I need to finish my Lego boys 27. Keep going	29

	28. Boys we have to keep building 29. Is this a piece?	
11/15	30. Doing models is so cool 31. Check out your model 32. Those are batteries	32
11/21	33. I'm missing that big piece	33
11/28	34. Some of my pieces are missing	34
12/5	35. Check out what I'm playing	35
12/14	36. What are you doing? 37. What's wrong? 38. Ollie wants to rest 39. After you're done with your model you can go rest 40. Look at that truck	40
12/21	41. We're missing the small piece 42. The black piece and the small green piece is missing 43. Some of the pieces aren't there 44. I hear a fire truck go	44
1/3/13	45. What's so funny? 46. There's a piece missing, we can build it next time 47. If a piece is missing, I can skip it	47
1/17	48. Some of my pieces are not found 49. Even if I'm missing a piece, I don't have to go crazy 50. There are 5 tire pieces	50
1/24	51. There are 5 gray pieces 52. Some of those black pieces are missing 53. Some of those gray pieces are missing 54. Where's the other piece? 55. I hear someone crying 56. The tire piece is missing 57. Can I borrow the piece? 58. The light gray piece and orange piece is missing	58

Lunch

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/8/12	N/A	0
3/9	N/A	0
3/12	N/A	0
3/16	N/A	0
3/28	N/A	0
4/13	N/A	0
4/19	N/A	0
4/26	N/A	0
5/2	N/A	0

5/9	N/A	0
5/31	N/A	0
7/13	N/A	0
7/19	N/A	0
7/30	N/A	0
8/2	1. Eating burgers is fun	1
9/17	2. It's still cold	2
9/21	3. It's a sharp fry	3
9/28	4. The pizza has a lot of tomato sauce 5. This pizza looks delicious	5
10/10	N/A	5
10/25	6. It's tomato ketchup	6
11/7	N/A	6
	Scripts Introduced with Training Stimuli	
11/15	7. I'm so hungry today 8. My food tastes great 9. Look it's tomato sauce 10. Your lunch looks cool 11. I'm so hungry today, can we call out for more pizza?	11
11/21	12. Check out what I'm eating 13. I hear Kelly crying 14. Are you okay? 15. My ice cream is cold 16. I don't like vanilla I like chocolate 17. What's that sound? 18. My ice cream's freezing 19. My ice cream looks very cold	19
11/28	20. Check out what I have today 21. Check out what I'm eating 22. Eating lunch is so fun 23. My food tastes great and kooky	23
12/5	24. My food is getting hotter 25. The waiter just put pickles in there 26. My food looks good 27. Some of my food is hot 28. Erin's tired 29. I'm working for Coke 30. Some of my food is missing 31. Eating lunch is so much fun	31
12/14	32. Some of your food is not eaten 33. Your drink of water has no calories and no sugar 34. It looks like a mouse 35. It looks like my gums are numb	35
1/9/13	36. Some of the cheese is missing 37. I have a runny nose 38. Erin's here	43

	39. The purple food and the yellow food is missing 40. Some of my food tastes hot 41. Why is Jake crying? 42. I don't want to go to the movies 43. Look at my mouth	
1/18	44. I don't like strawberry ice cream 45. Some of our ice cream is missing 46. Some of my ice cream is dark 47. Some of my ice cream is chewy 48. Some of my ice cream is cold and creamy 49. Some of my ice cream tastes fresh 50. Some of my ice cream tastes good 51. Some of my ice cream tastes cold 52. Some of my ice cream tastes bad 53. Some of my green ice cream is missing 54. Some of my other ice cream is missing 55. We're gonna have fun Friday after ice cream	55

Aiden – Novel Initiations – Across Novel Setting

Laptop

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/12/12	N/A	0
3/23	N/A	0
3/31	N/A	0
4/17	N/A	0
5/4	N/A	0
6/8	N/A	0
Scripts Introduced with Training Stimuli at School		
7/20	N/A	0
8/1	N/A	0
8/9	N/A	0
9/21	1. I won I got 2 fish 2. This game is awesome 3. They're running in the train	3
10/5	4. I love playing on computers 5. It's a beehive 6. I love printing things 7. Playing games is so fun 8. There's the bee	8
10/12	9. I lost 10. I got in the skeleton 11. It's so cool to play on computers	13

	12. Your computer looks cool 13. It's cool to play computer, so check out my game	
10/19	14. Look it's pizza 15. Look it's BBQ sauce 16. Look at this it's cucumbers 17. Look I did the tomato, the broccoli and the BBQ sauce 18. Look it's BBQ sauce and tomato sauce 19. I love playing on computers, don't you Brayden? 20. Look it's SpongeBob and all the letters and numbers on here 21. I got game over	21
11/3	22. I won 23. Playing computers is so fun 24. Playing computers is so much fun 25. It's squirting water 26. It's steam 27. Swampy is banging on the faucet 28. Swampy is taking lots of baths 29. I almost made it 30. Now Swampy's taking a fun bath	30
11/9	31. Computers are cool 32. Doing computers is so cool 33. Doing computers is so much fun 34. Look it's water 35. Playing computers is so cool	35
11/16	36. Your computer looks very very cool 37. It's snow 38. It's raining outside 39. Brayden it's hot 40. It's raining, it's pouring, the old man is snoring 41. I know the rain will turn us into snow 42. It's snowing outside 43. It's sunny	43
12/1	44. Check out what I'm playing 45. Anytime I can make it 46. I can't go down the tube there's lots of enemies down there 47. This is really hard 48. I keep losing 49. I lose a lot of times 50. My game looks cool 51. I got game over, I keep falling and falling around 52. Luigi's growing up taller 53. Luigi's like that 54. The bullet came 55. I'll try again for a minute 56. I win without losing	56
12/14	57. He's going down	62

	58. Check out what I'm playing, it's Major Monogram 59. Agent P can't go inside 60. The door is locked 61. This is a hard game 62. I opened the lock	
12/22	63. Listen to this 64. Can I open the curtain? 65. This is running out of water 66. Something smells like pine trees	66

Model Building

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/12/12	N/A	0
3/23	N/A	0
3/31	N/A	0
4/17	1. Don't worry, I'll fix it	1
5/4	N/A	1
6/8	N/A	1
7/20	N/A	1
8/1	N/A	1
8/9	N/A	1
9/21	2. Look at that car	2
10/5	3. Check it out	3
10/12	4. You made a tractor	4
Scripts Introduced with Training Stimuli at School		
10/19	5. Are you okay? 6. Watch what I'm building 7. I love building these models 8. My mom is cooking dinner 9. My mom is setting up the dinner 10. I smell something 11. Check it out I made a car 12. I love building my car	12
11/3	13. My pieces are missing 14. You're building Legos, good job, I commend you 15. Do you like it? 16. I need those 2 yellow pieces 17. That's really awful 18. Good building your Legos 19. Do you like building your Legos? 20. I love building, you're building a house and a Lego man	20
11/9	21. Building Legos is so much fun	35

	22. Do you mind finishing your Lego piece? 23. Building models is so much fun 24. Your model looks like a horse ride 25. I'm working for root beer 26. Bulding Legos is so cool 27. If you don't listen, police will take you to jail 28. Your model looks cool 29. Do you like building your models? 30. I love your models 31. Can I borrow a piece? 32. I'm always missing some pieces 33. If we're missing pieces, we can draw the pieces 34. You love building your piece 35. You have your piece	
11/16	36. Your model looks like a helicopter 37. We're going to do iPad after models 38. Why did you do that? 39. Building models is cool 40. Your nose looks smelly 41. Good building your Legos 42. I'm missing a big piece 43. Your model looks very cool 44. I'm up to the 5 th one, almost up to the 6 th one	44
12/1	45. I'm missing the small piece 46. I can put on this piece 47. I built it 48. Check out what I built 49. My piece is on top of the cover	49
12/14	50. I'm missing the big white piece 51. The yellow pieces are missing 52. What are you doing? 53. Your model looks like a car 54. My model looks great	54
12/22	55. I'm missing a window piece 56. Check out what I'm playing 57. I can play this without this piece	57

Lunch

Scripts: N/A

Date:	Utterance(s):	Cumulative #:
Baseline		
3/12/12	1. Now your pizza is plain	1
3/23	N/A	1
4/17	2. Let me see your teeth	2
5/4	N/A	2

6/8	N/A	2
7/20	N/A	2
8/1	N/A	2
8/9	N/A	2
9/21	N/A	2
10/5	N/A	2
10/12	N/A	2
10/19	N/A	2
11/3	N/A	2
11/9	N/A	2
	Scripts Introduced with Training Stimuli at School	
11/16	3. I'm so hungry today 4. Your chicken looks good 5. Look what I have today 6. My food tastes great 7. I'm having my ribs 8. Your dinner looks cool 9. Your food looks really good	9
12/1	10. My food is hot 11. Check out what I'm eating	11
12/14	12. Look tomato sauce 13. Look it's in Chinese 14. My tomato has sauce in it 15. Your soda is really bubbly	15
12/22	16. Do you want this? 17. Can I have this? 18. My food tastes good	18

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