Effectiveness of modeling strategy in improving reading aloud skills among primary third grade in both Taibeh and Westieh Brigades in Irbid Governorate

BY
Abed Elkareem Ghazi Abed El-Hafed Al Hazaimeh
The Ministry of Education, the educational district of both Taibeh and Westieh, Department of Educational Supervision

Abstract
The study aimed to investigate Effectiveness of modeling strategy in improving reading aloud skills among primary third grade in both Taibeh and Westieh Brigades in Irbid Governorate, and it used the quasi-experimental approach. The study sample consisted of (40) primary third grade female students of Kufr Asad Primary School for girls who were distributed randomly into control and experimental groups, and each group has (20) female students, where the control group (learn reading aloud skills through the ordinary book method), and the experimental group (learn using the modeling strategy). To achieve the study objectives, the researcher prepared the tool of the study which is an observation card to measure reading aloud among primary third grade female students which consisted of (12) skill distributed on (4) main aspects. After the tool validity and reliability have been verified, it was applied on both control and experimental groups before teaching reading aloud skills as it was a post-test. By using the proper statistical methods, the study results showed that there were statistically significant differences at the level ($\alpha \leq 0.05$) between the means of the experimental and control groups female students’ grades of the post-applied of reading aloud skills observation card and it was for the experimental group female students in the performance of reading aloud skills: correct pronunciation of letters and words, identifying, the expressed performance and fluency. There were also were statistically significant differences between both the pre and post measurements among experimental group female students for the post – measurement in the skills of correct pronunciation, identifying, expressed performance and fluency. The results also showed that there was a statistically significant difference differences between both the pre and post measurements among experimental group for the post-measurement of the reading aloud skills among primary third grade female students. In the light of these results a number of recommendations were set, the most important are: the need to pay attention to train the lower primary stage students on the performance of reading aloud skills in Arabic Language by using modeling strategy which facilitate acquiring educational skills presented to female students, to improve the level of students; learning of Arabic Language in general, and reading aloud skills in Arabic Language particularly.

Keywords: the modeling strategy, reading aloud, primary third grade, both Taibeh and Westieh Brigades.
Introduction

Arabic language is considered of the most important communication among students and with others. It makes them accept talk and listen to it, and it acquires them others respect because of what it contains of utterances and attractive impressive phrases to a listener. So, language and its reading skills are considered to be the base of communication and interaction processes, and the same time form the most important methods of this interaction and communication.

It is clear to all that Arabic Language is one of the most important more widespread international languages, and of the most accurate languages to depict its speaker’s feelings, senses, thoughts, emotions and what falls under his senses to distinguish it with its music rhythm, beauty of its utterances and meaning splendor (Salman, 2011).

When mediating Arabic Language skills, it is observed that reading with its kinds aloud and silently is the most important language skills. It is the first entry in education and launch to learn information and knowledge as it is considered the base step in the educational process in general. Reading is also considered to be a way of progress and upgrade, refines and activates thought and the student’s means to his study and learning which defines his attitudes, improves his desires, increases his experiences and treats his problems. It also opens all of culture aspects in general to acquire science and knowledge. Although of each progress and development in science, reading remains the base element to obtain information from its resources (Alhawamdeh, 2015).

The teaching process also needs to keep pace with progress which happens in all aspects of life, and this can’t be achieved only through renovation in teaching methods. Therefore it becomes necessary for a teacher to innovate in his specialization to achieve students’ learning in an easy comfortable way through using teaching strategies to help him.

The educational field contains several teaching strategies which can be implemented in the teaching process. Therefore, there is a need for students of the primary stage to benefit from the different teaching strategies and methods that teachers use with them to improve their reading skills. One of these skills is the modeling one which considered being an important strategy in the education process in general, and in learning reading aloud skills in particular, especially because modeling proved its effectiveness and usefulness in teaching many school subjects (Watfa, 2012).

The modeling strategy firstly depends on simulation and imitation, and as it is known, teaching through simulation and imitation is considered to be of the most effective ways of teaching, where the importance of this method becomes clear through roles inside the class between a teacher and student (Almanna, 2015).

Modeling is considered as a useful strategy with all of sorts students and the educational stages. It provides information in a direct practical method and this contributes in improving skills among to a student (Abdel Naby, 2013)
The study problem
Throughout the work of the researcher as a supervisor of the first primary grades and Arabic Language of the primary stage, he observed a weakness in performance of Arabic language skills and pronunciation and expressing of reading aloud skills among female students. So, the current study seeks to identify this weakness and treat it through using the modeling strategy in improving reading aloud among primary grade female students in both Taibeh and Westieh Brigades in Irbid Governorate.

Because of the importance of reading aloud and learning its skills since it is the base substrate in education and through perusal some educational literatures which indicate to the weakness problem among the first primary grades students in performance of reading aloud skills. But the teacher can overcome this weakness through improving some reading aloud skills while teaching; by using one of the beyond knowledge strategies which is the modeling strategy, in addition to the lack of teaching of reading aspect and research it to modern teaching strategies.

And thus, we can define the study problem through the following question: What is the effectiveness of modeling strategy in improving reading aloud skills among the primary third grade female students in both Taibeh and Westieh Brigades in Irbid Governorate?

The following theory is emerged from the previous question:
There are statistically significant differences at the level (α ≤ 0.05) among means of the primary third grade female students grades on the post-test in reading aloud skills (correct pronunciation, identifying, expressed performance and fluency) between the experimental group which was taught by using the modeling strategy and the control group which was taught by the ordinary method.

The study objectives
The current study aimed to:
1. Identify the effectiveness of the modeling strategy in improving reading aloud skills among the primary third grade female students.
2. Identify whether there are statistically significant differences at the level (α ≤ 0.05) among means of the primary third grade female students grades on the post-test in reading aloud skills between the experimental group which was taught by using the modeling strategy and the control group which was taught by the ordinary method.

Importance of the study
The importance of the study emerges through its theoretical and practical importance.

The theoretical importance:
1. The study derived its importance from the importance of the subject it dealt with which is the modeling strategy that is considered to be one of the beyond knowledge strategies.
The practical importance:
The results of the study may benefit through the following:
1. Planners of Arabic language curricula through providing them with a list which includes some reading aloud skills of the first primary grade students.
2. The primary stage teachers through providing them with principles and mechanism of implementing and applying the modeling strategy in teaching reading aloud skills.
3. The primary grade students especially the primary third grade female students through what it provides them with linguistic skills that help them to develop their linguistic level in reading.

Terms of the study
- Effectiveness: Ibrahim (2010, 127) defines it as: “evaluating the evaluation which produced the outcomes or results which can be observed”.
It is procedurally defined in this study as: the result which is occurred by the modeling strategy in improving reading aloud skills among the primary third grade female students.
- Strategy: Abu Zahra (2010,125) defined it as: “ a set of procedures used by a teacher and a learner to help the latter organize and control his learning in order to control his cognitive activities, and ensure achieving these activities. It is procedurally defined as: procedurally processes to manage and organize female students’ thinking when training on reading aloud skills and apply them in proper reading positions”.
It is procedurally defined in this study as: educational strategy includes procedures used with the primary third female students to improve reading aloud skills.
- Modeling: Alqadi (2013,48) defined it as: “ the strategy where the teacher as a model shows the different steps, behaviors and skills beyond the cognitive while practicing training skills in front of female students depending on thinking aloud where he pretends to think aloud in front of his female students, and he directs himself verbally to express what inside his mind”.
It is procedurally defined in this study as: procedurally acts depend on observation and imitation of the teacher’s method in implementing and mastering reading aloud skills and apply them in proper reading positions”.
- Reading aloud: Almallah (2013,51) defines it as: “ a process expressing meanings that reading includes, and it also include intellectual processes and high thinking levels of analysis and reasoning, link between previous experience and new meanings, deduction, criticism, evaluation, problem solving and creativity”.
It is procedurally defined in this study as: female students' ability of actual practice of reading aloud skills and connects among all its intellectual, cognitive, and linguistic procedures and employs them in different life positions.

The study limits
- Subjective limits: third unit of Arabic Language of the primary third grade.
Time limits: the study was applied in the second semester of the academic year 2019.
Human limits: a sample of the primary third grade female students of Mixed Primary Kufr Asad School.

Literature review and related study

Concept of the modeling strategy

When talking about modeling, we mean the strategy which is completed through transfer an experience or idea from a person to another or a group by a model through the method of imitation and simulation which means (think as I think, or work as I work). There several definitions of concept of modeling strategy, the most important are the following:

The modeling strategy from point of view of Khattab (2010,134) is: “an educational method lies in learning by model and showing the clever or desired behavior in front of students, and linked with explanation and comments that the model (teacher) or the example presents while doing his work.

The modeling strategy is one of the strategies which falls under the Social Learning Theory, where Qatami (2010, 82) pointed that the Social Learning Theory is one of the theories which the behaviorists have agreed on, which may be fallen under behavioral and cognitive theories.

Abdul Sattar (2012, 39) pointed to that the establishment of modeling strategy started with the Social Learning Theory according to (Miller and Dollar), who are the pioneers of Modern Behavior School in their famous book (Social learning and simulation) in 1941. They tried to adjust among behavior principles and psychological analysis. Then, Julian Router formulated it in his book entitled (Social learning and clinical psychology) in 1954 where he emphasizes the concept of reinforcement. After that, Howard Kelly developed the previous tries in a structure called (Attribution theory) in interpreting the social behavior.

Steps of teaching the modeling strategy:

There are three steps which the strategy consisted of as mentioned by Afatayri (2010,328), and Hmaidah (2012,27):

Presenting the skill: it is presented by a teacher directly, or through an educational material prepared by a teacher, too. The material includes a definition of the skill, its importance, the process of thinking included in and explanation of it through examples with a show of some errors which the students are expected to fall in, its reasons and how to overcome them.

Modeling through a teacher: A teacher presents a model of the intellectual processes included in the skill. The teacher pretends that he thinks aloud in front of his students, explaining how to use the skill. The teacher may read a problem in front of the students and he practice self-questioning to express verbally about what is in his mind, which means that the teacher thinks aloud in front of the students when solving
a problem and directs himself verbally with awareness of thinking and show that to the students with an explanation of its tracks, where this is included in the frame of modeling beyond knowledge. The modeling beyond knowledge doesn’t restrict to the common presentation where a teacher models in front his students. In addition, he explains accurately the available options in every stage and defines the reasons behind the selection of each option. Both processes of explanation and performance are important part in the modeling strategy where adapting one of them isn’t enough.

Modeling by a student: During the modeling process the teacher explains his thinking aloud, and he shows how is control in the cognitive processes (planning, control, evaluation and revision), which means it doesn’t restrict to imitation by a student but it needs to explain what is in his mind and all steps and alternatives in each step and the reason behind each one and not necessary to do the same as what the teacher has done to solve the problem. He may act in differently and simulate the teacher with a way of dealing with the problem not with the solution. He can give different ways of solving the problem but in each way he explains his thinking processes and method as what the teacher has did which means the student observes the thinking method which the teacher does to imitate him and this falls under the frame of modeling. Each student models the skill as the teacher does, but in a new item, then the student compares his processes in modeling with his colleague’s where each one expresses what is in his mind to the other, so the student becomes aware of his thinking processes and the teacher ensures the students understanding according to what he says.

Related studies:
Many studies dealt with modeling strategy, the most important are the following:
- The study of Nevid (2015) which aimed to identify the role of modeling in improving child intellectual abilities. The study sample consisted of (20) kindergarten female teachers in Anderlecht city in Belgium. To achieve the study objectives the researcher used the descriptive approach, and statistical process of the study data using a questionnaire. The results of the study showed that educational modeling help to improve creative thinking and imagination among children.
- The study of Alrazhi (2015) which aimed to identify the effect of the math modeling in improving creative thinking skills among students. The researcher used the quasi-experimental approach. The study sample consisted of (64) primary third grade female students in Gaza governorates. The study tools were two pre and post-tests, and a computer program of math modeling designed by the researcher. The results of the study revealed that there were statistically significant differences among means of the sample study grades in the pre and post application for the experimental group students.
- The study of Albrashi (2016) which aimed to identify the effect of using modeling in improving the systematic thinking skills in science and tendency towards it among the
primary fourth grade female students in Egypt. The researcher used the quasi approach. The study sample consisted of (72) the primary stage female students in Egypt. The study tools were the systematic thinking skills test and the science tendency measurement. The results of the study showed statistically significant differences at the level (0.05=α) among mean of experimental group female students grades and the control group in the systematic thinking skills for the experimental group female students. There were also statistically significant differences at the level (0.05=α) among mean of experimental group female students grades and the control group in the science tendency measurement for the experimental group.

- The study of Ezat (2016) which aimed to identify the effect of integration between micro teaching and modeling in improving some of the teaching skills among science faculty female students. The researcher used the experimental approach. The study sample consisted of (66) science faculty female students of the final year. The study tools were both pre and post-tests. The results of the study showed that there were statistically significant differences at the level (0.05=α) for the experimental group female students in warming up, explanation, questions and ending skills for performance.

- The study of (Brigman, 2017) which aimed to identify the role of modeling strategy in solving not remembering problems. The researcher used the experimental approach in his study. The study sample consisted of (48) female students of Primary Dayton Catholic School in Ohio State in USA. The study tools were both pre and post-tests. The results of the study revealed that experimental group female students were able to solve unpopular and more difficult problems, and they have intellectual flexibility compared with the control group.

Comment on the previous studies

The results of this study agreed with the results of the previous studies in focusing on modeling strategy and their relation with other variables. Concerning modeling strategy they agreed with the results of studies of Nevid (2015), Alrazhi (2015), Albrashi (2016), and Brigman (2017). The current study also agreed with the previous studies in using quasi-experimental approach except the study of (Brigman, 2017) which used the experimental approach.

The current study is distinguished in its uniqueness in dealing effectiveness of modeling strategy in improving reading aloud skills among the primary third grade female students, but this study benefited from the previous studies in building literature review, previous studies and the tools.

The study approach

The study used the experimental approach in its quasi experimental design.
The quasi-experimental of the study

The researcher used the quasi-experimental design based on existence of two groups: an experimental group and control group, where the control group was taught by using the teaching material (the ordinary book method), while the experimental group was taught by using the teaching material (modeling strategy), with the pre and post application of the study tool (observation card) on the two groups.

<table>
<thead>
<tr>
<th>Table (1) The study quasi experimental design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study groups</td>
</tr>
<tr>
<td>Control Group</td>
</tr>
<tr>
<td>Experimental Group</td>
</tr>
</tbody>
</table>

The study Society

The study society consisted of all the primary third grade female students in schools belong to Directorate of education of both Taibeh and Westieh Brigades of Irbid Governorate.

The study sample

The study sample consisted of (40) primary third grade female students of Kufr Asad Primary School for girls, who were distributed randomly into two experimental and control groups, with (20) female students in each group: the control group (learn reading aloud skills by the ordinary book method), and the experimental group (learn by using the modeling strategy).

The study tool:

To achieve the objectives of the study, the researcher prepared an observation card to measure reading aloud skills among the primary third grade female students.

Reading skills observation card:
The reading skills card was prepared according the following steps:

A-Defining the objective of the tool:
The observation card to measure the degree of third grade female students performance of reading aloud skills through observing female students performance of these skills through the modeling strategy.
B-Preparing reading skills list:
The researcher prepared a list of reading aloud skills which is expected to be acquired by female students after applying the modeling strategy, and (12) reading skills were defined distributed in (4) aspects which are:
1. Cognitive skills
2. Correct pronunciation
3. Expressed performance skills
4. Fluency skills

C-Analysis reliability: the researcher reanalyzed after two weeks of the first analysis, then the reliability coefficient was counted using the following Cooper Equation (Abdul Rahman,2012,34):

\[
\text{Reliability coefficient} = \frac{\text{Number of agreement times}}{\text{Agreement points} + \text{Disagreement points}} \times 100
\]

Table (2) Analysis reliability

<table>
<thead>
<tr>
<th>Re</th>
<th>Fact</th>
<th>Sectors</th>
<th>Agree</th>
<th>Disagreement</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0.86</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in table (2) the coefficient reliability was (0.86), and this indicates a high degree of reliability. Based on analysis results, reading aloud skills list which wanted to be acquired to the primary third grade female students which were (12) skills was defined.
D-Defining the level performance of the skill:
Three levels to judge each skill were defined as follows:

The high level: this level means that a female student performance arrives the mastery rate of the intended reading skill; the performance at this level is estimated with three degrees.

The medium level: this level means that the female student can perform the skill with a proper degree (gather between more mastery and little error), this performance is estimated at this level with two degrees.

The low level: this level means that the failure of the female student to perform the skill with a proper degree (failure of perform skill as appropriate), this performance at this level is estimated with one degree.

E-Checking reading skills list validity:
To check the list validity, the researcher first checked the content validity through revision of resources and previous studies related to reading aloud skills, their different classifications, its analysis to prepare the list and then show it to the specialized arbitrators in curricula and Arabic Language teaching methods, where they asked to give their opinions in the list concerning the property of the skill to the primary third grade female students, and the belonging extent each item to the level of reading which was classified under it, formulation clarity of each skill and remove, adjust or add proper skills.

The researcher collected views of arbitrators and extracted their percentage. The skills which got the arbitrators agreement with a percentage of (80%) were considered proper for the primary third grade female students.

The study results and their interpretation:
To achieve the results of the study, the study theory was tested: “There are statistically significant differences at the level ($\alpha \leq 0.05$) among means of the primary third grade female students grades on the post-test in reading aloud skills (correct pronunciation, identification, expressed performance and fluency) between the experimental group which was taught by using the modeling strategy and the control group which was taught by the ordinary method.

To test the study theory validity, the differences indications between the two post measurements of both groups of study (control and experimented) in the areas of reading aloud skills on the observation card by using (T-Test) of the differences indications between means of dependent groups as follows:

Table (3) Differences indication between two post measurements of both study groups (experimental and control) of reading skill
<table>
<thead>
<tr>
<th>Variables</th>
<th>Experiment Group</th>
<th>Control Group</th>
<th>Difference Between Means</th>
<th>Counted T Value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Arithmetic Mean</td>
<td>Arithmetic Mean</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pronunciation Skill</td>
<td>1.00</td>
<td>1.00</td>
<td>8.00</td>
<td>1.00</td>
<td>3.00</td>
</tr>
<tr>
<td></td>
<td>6.00</td>
<td>9.00</td>
<td>9.00</td>
<td>6.00</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>3.00</td>
<td>5.00</td>
<td>5.00</td>
<td>4.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Identification Skill</td>
<td>8.00</td>
<td>1.00</td>
<td>5.00</td>
<td>0.00</td>
<td>3.00</td>
</tr>
<tr>
<td></td>
<td>9.00</td>
<td>7.00</td>
<td>8.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>0.00</td>
<td>5.00</td>
<td>6.00</td>
<td>2.00</td>
<td>5.00</td>
</tr>
<tr>
<td></td>
<td>2.00</td>
<td>0.00</td>
<td>2.00</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>1.00</td>
<td>3.00</td>
<td>4.00</td>
<td>1.00</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>9.00</td>
<td>7.00</td>
<td>7.00</td>
<td>1.00</td>
<td>9.00</td>
</tr>
<tr>
<td></td>
<td>2.00</td>
<td>4.00</td>
<td>4.00</td>
<td>6.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>
As shown in the previous table, there are statistically significant differences between the two post measurement of both study groups (experimental and control) at the level (0.01) for the post measurement of the experimental group in the observation card skills, where the counted "T" value was higher than the tabular "T" value at the level (0.01).

To know the effect size of the dependent variable (the modeling strategy) in occurring the differences which have been found in the independent variable – after releasing it from the effect of the sample- the effect size was counted by Eta Squared ($\eta^2$) – statistical method completed of statistical theories using the mentioned equation in the study procedures. The results were as follows:

### Table (4) Eta Squared ($\eta^2$) values to process theories

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Correct pronunciation</th>
<th>&quot;T&quot; Value</th>
<th>Degrees of Freedom</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3.75</td>
<td>3</td>
<td>0.79</td>
</tr>
</tbody>
</table>

"T" Value at the significant level 0.05= 1.67

As shown in the previous table, there are statistically significant differences between the two post measurement of both study groups (experimental and control) at the level (0.01) for the post measurement of the experimental group in the observation card skills, where the counted "T" value was higher than the tabular "T" value at the level (0.01).
As shown in the table, it is clear that Eta Squared ($\eta^2$) values ranged from (0.86 - 0.73), and this means the whole variation percentage of the sample individuals’ degrees which refer to effect of modeling strategy ranged from (73%) to (86%) respectively. This means that the dependent variable was of (a very high effect) in improving these aspects of reading skills, and responsible for the differences between the two post-tests of both (experimental and control) study groups.

According to that, the study results showed that there are statistically significant differences between the pre and post-measurements of the experimental group for the post-measurement in performing correct pronunciation skills performance, identification skills, expressed performance and fluency in observation card of reading aloud skills among the primary third grade students, statistically significant differences between the pre and post-measurements of the experimental group for the post-measurement in the observation card of reading aloud skills and statistically significant differences between the pre and post-measurements of the (experimental and control) groups for the post-measurement in performing skills of correct pronunciation, identification, expressed performance and fluency in the observation card of reading aloud skills among the primary third grade female students.

This result can be interpreted in the light of teaching procedures using the modeling strategy which led to increase the level of reading aloud skills among the experimental group female students compared to the experimental group female students. This may due to the focus on reading aloud skills in reading aloud lessons which contributed in improving female student skills in the skilled reading aspect. The use of the modeling strategy in improving reading skill had a high effect and this appeared in female student's results of the experimental group.

As these aspects were available in the modeling strategy and in wide areas in time presentation and opportunities of practicing reading aloud skills, which contributed in increasing the level of reading aloud skills performance in its whole form with a statistical significant among the experimental group female students compared to the control group female students in the post-measurement of skills card observation.
These results in their indication on effectiveness using of the modeling strategy in improving reading aloud skills among the primary third grade female students agree with the results of most of studies that applied the modeling strategy to improve some Arabic Language skills among students of the different educational stages such as pronunciation skills as in the study of Alrazhi (2015), or fluency skills as in the study of Albrashi (2016) or identification skills as in the study of Ezat (2016).

The current result of its indication on the effectiveness of using the modeling strategy improving the skilled reading aspect among the primary third grade female students with the results of studies that applied this method in improving linguistic skills like fluency skills as in the study of Ezat (2016), or expressed performance skills and the study of Brigman, 2017).

The current results also agree with the results of studies that dealt with using the modeling strategy to improve reading aloud skills such as correct pronunciation, identification, expressed performance and fluency as in the study of (Nevid, 2015)

**Recommendations and suggestions**

In the light of the study results, the researcher recommends the following:
- To take care of teaching reading skills in Arabic Language in the first primary grades through using the modeling strategy which facilitates acquiring educational experiences of the students which were presented to them, and work to improve the educational process in general and acquire Arabic Language skills in particular.
- To use modeling in presenting the different school subjects.
- To conduct more researches and studies in improving reading aloud skills of Arabic Language and other school subjects in the first three primary grades.
References

Abdul Sattar, N. I. (2012). *Principles in general teaching methods*, issue 1, Cairo, Egyptian Anglo Bookshop.


