

CHAPTER II

THE EFFECTIVENESS OF BRAIN GY METHOD TO IMPROVE TEACHING ENGLISH SPEAKING

A. Theoretical Review

1. Constructivist Theories of Learning

Constructivist theories of learning is a learning theory which is based on idea. The main of constructivist theories is an idea that every learner has to find and change the difficult information if they want to make the information to be theirs.¹ Constructivist theories see the learners as the one who is always check the new information for the old rules and then make any revisions to the old rules if the old rules are useless anymore.

This idea has a big implication for the teaching, because it gives the more active role for the learners in their own learning. It means that constructivist theories is a ‘student-centered learning’. It emphasizes the importance of the active involvement of learners in constructing knowledge for themselves and building new ideas or concepts based upon current knowledge and past experience.² To design effective teaching environments, constructivist believes that someone needs a good understanding of what children already know when they come into the classroom.

Based on constructivist theories of learning, the students will be able to solve the problems, find the ideas, and make a decision. They will be more understand and will be able to apply it on every situation. Besides, the students are involved actively so that all of concepts that have been gotten will be remembered longer.

¹ Slavin Robert E, “*Psikologi Pendidikan Teori dan Praktik*”, (Jakarta: Indeks, 2011), p. 3

² <http://id.wikipedia.org/wiki/learningtheory>, (accessed on 12/11/2014)

One of the important things in an affective learning is motivation. Motivation is something that caused someone steps, makes someone keep in step, and decides where someone trying to step.³ There are two kinds of motivations. They are intrinsic motivation and extrinsic motivation. Intrinsic motivation is a motivation that comes from someone's interest in something. For example, a student interest in a lesson that he think it's interesting, so he do an effort to learn it more and more. Extrinsic motivation is motivation that comes from the outside such as compliment, score, appreciation, and reward.

There are many ways to increase students' learning intrinsic motivation. One of them is giving some interesting presenting. Intrinsic motivation to learn something will increase through the use of interesting materials, and also many kinds of presenting ways.⁴ For example, the teacher can maintain the students' interest by any variations of movie, games, models, etc.

Constructivist theories of learning is a 'student-centered learning', so it is important for the teacher to choose an appropriate variation that not only can maintain the students' motivation, but also can improve the students' thinking ability to facilitate the students' needs in a 'student-centered learning'. To improve students' thinking ability, first of all the teacher should optimize the students' brain functions. Students' brain functions can be improved trough sports, gym, movements, and other physical activities. Sports and other physical activities will be interesting for the students and also profitable for the students.

Sports did many things for brain. First, it improves the circulation of individual's neurons to get more oxygen and nutrient. Second, it can stimulate the production of NGF (nerve growth factor) hormon which can

99 ³ Slavin Robert E, "*Psikologi Pendidikan Teori dan Praktik*", (Jakarta: Indeks, 2011), p.

125 ⁴ Slavin Robert E, "*Psikologi Pendidikan Teori dan Praktik*", (Jakarta: Indeks, 2011), p.

improve brain functions. Third, the hard motoric repetition movements can stimulate the production of dopamin as neurotransmitter of moods generator.⁵ It is clear that movements can improve the thinking ability and learning ability.

2. Brain Gym method

a. Definition of Brain Gym Method

Dr. Dennison and Gail E Dennison was the person who discovered Brain Gym method in the 1980.⁶ They continue of research by developmental specialists who had been experimenting with using physical movement to enhance learning ability. They called their work Educational Kinesiology.

According to Dennison Brain Gym movements serve as a short of selftool that is easy and effective that we need to optimize our performance and satisfaction in the workplace in a business environment, and we can achieve this optimum achievement and satisfaction with the motion just a few minutes each day.⁷ Brain Gym method can be used at the beginning of lessons or topics. It is safe and enjoyable. Brain Gym consists of simple movements. Brain Gym method useful in a classroom situation because it does not require sophisticated equipment or large areas. When student is allowed to use the body, it encourages the brain to make use of a variety of intelligences.⁸

b. The Functions of Brain Gym Method

There are benefits of this method. Learn anything faster and more easily, perform better at sports, be more focused and organized, start and finish projects with ease, overcome learning challenges, and

⁵ Jensen Eric, *Brain-Based Learning*, (Yogyakarta: Pustaka Belajar, 2008), p.260.

⁶ <http://www.braingym.org/history>, accessed January 11th 2014.

⁷ Dennison Paul & Dennison Gail, *Brain Gym (Senam Otak) Untuk Bisnis*, (Batam: Interaksara, 2004), p. 6.

⁸ <http://igreen.tripod.com/gerpe/id29.html>, accessed on 05/01 2014.

reach new levels of excellence⁹. Therefore, the basic idea behind Brain Gym is by certain body movements the brain will develop, and learning will be enhanced.

According to Mary Jo Wagner, children and adults use Brain Gym to help integrate body and mind by developing the brain through movement. It's called whole brain learning. Use Brain Gym to improve: (1) Concentration and Focus. (2) Memory (3) Reading. (4) Writing. (5) Organizing. (6) Listening. (7) Physical coordination. (8) Project completion. (9) Learning. (10) Sports performance.¹⁰

Dennison describes brain functioning in terms of three dimensions.¹¹ First, laterality is the ability to coordinate one side of the brain with the other, especially in the visual, auditory, and kinesthetic midfield, the area where the two sides coordinate. This skill is the basic to the ability to read, write and communicate. It is also essential for whole body movement, and for the ability to move and think at the same time. Second, focus is the ability to coordinate the back and front areas of the brain. It is related to comprehension, the ability to find meaning, and the ability to experience details. People without this basic skill are said to have attention disorders and difficulty in comprehend. Third, centering is the ability to coordinate the top and bottom areas of the brain. This skill is related to organization, feeling and expressing one's emotions, a sense of personal space, and responding rationally.

From the description above Brain Gym method is suitable for learning English language that should master four basic skills: reading, speaking, writing and listening.

⁹Keith J. Hyatt, "Brain Gym Building Stronger Brains or Wishful Thinking?" *Remedial and Special Education*. (Vol. 28, No. 2, March/April 2007), P. 117–124.

¹⁰Wagner Mary Jo, "Three Brain Gym Movements to Help You Lower Stress, Calm Down, and Learn Anything Easily", *Brain Boosters for Your Kids*, <http://www.brainboostersforyourkids.com/freeBGguide.htm>, accessed on January 26th 2014.

¹¹Wagner Mary Jo, "Three Brain Gym Movements to Help You Lower Stress, Calm Down, and Learn Anything Easily",.

c. Kinds of Brain Gym Movements

In Brain Gym; there are 26 basic movements that are divided into three movements ¹²

- 1) The Middle Movement. This movement consists of 11 movements to integrate the left and right brain. With this movement, the ability of social and academic improved.
- 2) Lengthening Activities. There are 6 basic movements to integrate front and back of the brain. This movement serves to enhance the ability to focus and reduce stress.
- 3) Energy exercise and deepening attitude. This movement consists of nine movements to integrate the top and bottom brain. Useful for; balance emotions, feelings, and adaptation.

In this research, the writer will use 9 movements as treatment that closely related with learning speaking:

1) Positive points

The students lightly touch the point above each eye with the fingertips of each hand. The points are on the frontal eminences, halfway between the hairline and the eye brows.¹³ This movement improves students' public speaking ability.

2) Thinking Cap

The Thinking Cap activates brain for listening, focusing attention, inner dialogue, and hinking. The steps are :

- a) Stand or sit comfortably.
- b) Starting at the top of the ears, gently grab both ears between the thumb and pointer fingers. With just enough pressure to feel good, let the thumb slide up and out off of the ear before grabbing the next piece of ear directly below what was pulled.

¹²<http://www.healthyexerciseworld.com/brain-gym-exercises.html>, accessed on January 11th 2014.

¹³ Paul E. Dennison, and Gail E. Dennison, *Brain Gym*, (California: Edu-Kinesthetics Inc., 1989),p.32

Slide the thumb off of the ear all the way down to the last part of the lobe, giving the whole outer ear a nice massage.¹⁴

3) The Elephant

This movement is designed to improve listening comprehension and attention, thinking ability recognition, speech, and spelling skill. Relaxed neck is needed in this movement to focus the eyes gently throughout the movement. The steps are:

- a) Stand with feet hip distance apart.
- b) You will be making the infinity symbol with one arm at a time. Rest your left hand on your hip. Bring the right arm straight up and touching the side of your head.
- c) Your straight arm and head stay attached at the ear as you bring your arm in front and in the middle, perpendicular to your torso. Look at your middle finger and imagine a line extending straight out from it is tip.
- d) Make a large infinity symbol with the extended hand, moving first up and to the left in a wide arc, down around to your center, then up to the right and around back to center. Move using your whole torso. With a soft focus notice the object furthest in the distance that your middle finger points to as it moves slowly and steadily through the infinity symbol. Do three infinity symbols with one arm before switching arms and repeating the entire exercise three more times.¹⁵

4) Neck Rolls

The movement improves speech and language skill. The steps are:

¹⁴<http://www.healththyroidcenter.com/therapy/brain gym/movements.html>,(accessed on 9/09/ 2014, 10:35 am)

¹⁵ Paul E. Dennison, and Gail E. Dennison, *Brain Gym*, (California: Edu-Kinesthetics Inc., 1989),p.8

- a) The students allow their head to roll slowly from side to side, as though it were heavy ball, as they breath deeply
- b) As the head moves, the chin in its extreme positions does not pass either end of of the clavicle.
- c) Do neck rolls with eyes closed then witheyes open.¹⁶

5) Belly Breathing

The movement improves expressive communication and attention span. The steps are:

- a) Stand or sit comfortably.
- b) Place your hands gently on your belly, right around your navel.
- c) Take a long deep breath into your belly. Imagine your belly filling up, bottom first, all the way up to the top. You can imagine a pitcher being filled up with water.
- d) Exhale for a count of eight. Imagine all of the air slowly being expelled.
- e) Repeat steps 2 through 4, two more times or as desired.

6) The Energizer

The students sit comfortably in a chair, head resting on a desk or table. They places their hands on the desk in front of their shoulders, fingers pointing slightly inward. As they inhale they experience their breath flowing up the midline like a fountain of energy, lifting first their forehead, then their neck, and finally their upper back. Their diaphragm and chest stay open and their shoulders stay relaxed. This back-and-forward movement of head increase circulation to the frontal lobe for greater comprehension and rational thinking.¹⁷

¹⁶<http://www.healththyroidcenter.com/therapy/braingym/movements.html>,(accessed on 9/09/ 2014, 10:35 am)

¹⁷ Paul E. Dennison, and Gail E. Dennison, *Brain Gym*, (California: Edu-Kinesthetics Inc., 1989),p.14

7) The Owl

Students hold one shoulder and slowly moves the head from side to side, alloweing upper trapezius muscle to lengthen and relax.

8) Arm Activation

The active arm lengthens muscles in the upper part of chest and shoulders. When these muscles are contracted writing and tool controlling skills are inhibited. It activates the brain for: expressive reading, diaphragm relaxation and deep breathing, hand-eye coordination and tool controlling skills.¹⁸

9) The Footflex

This movement will assist in switching on the expressive verbal and written language areas of the brain. Bring foot up to opposite knee and grasp behind the knee, the calf and ankle as you slowly point and flex the foot. End by gently massaging the foot and toes with hand.¹⁹

d. Strength and weakness of brain gym method

1) Strength of brain gym method.

Brain gym is one of enjoyable activity. The movement of Brain gym looks like childish movement. It will be loved by the students. Brain gym is also make the students learn anything faster and more easily, perform better at sports, be more focused and organized, start and finish projects with ease, overcome learning challenges, and reach new levels of excellence²⁰.

¹⁸<http://www.healthythyroidcenter.com/therapy/braingym/movements.html>,(accessed on 9/09/ 2014, 10:35 am)

¹⁹ Paul E. Dennison, and Gail E. Dennison, *Brain Gym*, (California: Edu-Kinesthetics Inc., 1989),p.19

²⁰Keith J. Hyatt, “*Brain Gym Building Stronger Brains or Wishful Thinking?*” *Remedial and Special Education*. (Vol. 28, No. 2, March/April 2007), P. 117–124.

2) Weakness of Brain Gym method

Some movements of brain gym method need a larger space. It will not appropriate in a class which has a narrow space. The teacher should be able to choose the appropriate movements based on the condition of the class.

3. Speaking Skill

a. Definition of Speaking Skill

Speaking is one of four language skills besides listening, writing, and reading. Those all skills are divided into two skills, there are receptive and productive skill. Speaking is one of productive skills besides writing, which requires direct response, spontaneity and automaticity. Speaking has gained primacy of status in language teaching and learning. Speaking is so much a part of daily life that we take it for granted.²¹ It requires both knowledge and skill (Bygate 1987). It demands not only how to assemble phrases or sentences with particular formula, but also how to produce and adapt them in 'here' and 'now' situation. It means making decision rapidly, implementing them smoothly and adjusting speech as unexpected problems might appear.²²

Speaking can be considered as the most difficult skill to acquire since it requires command of both listening comprehension and speech production sub skills in unpredictable and unplanned situation. On the other hand, speaking can be viewed as the easiest skill since one can use body language, demonstration, repetition, and various other strategies to make oneself understood.²³

²¹ Scott Thornbury, *How to Teach Speaking*, 2005, p. 1

²²Listyaning S., Zulfa S., *Speaking for Instructional Purpose*, (Semarang: IKIP PGRI Press, 2007), p.10

²³ Marianne Celce-Murcia, Elite Olshtain, *Discourse and Context in Language Teaching*, (USA: Cambridge University Press, 2000), p. 164.

Speaking is a skill, and such needs to be developed and practiced independently of the grammar curriculum²⁴. In short, speaking can be as the way to carry out feeling through words, even conversations with other. It means that human use words and phrases in interactive process of constructing meaning of speaking.²⁵

In constructing meaning of speaking, there are particular natures of spoken form of language – transients, oral channel, and salient.²⁶ Transient means when a word is produced, there is an ongoing context of place and moment surrounding it. And the coordination between the speech and context carry on meaning which makes it cannot be reduplicated.

The production of language is carried out through oral channel. It is presented by the hand-in-hand work of vocal cords, tongue, and lips. This spoken language is then received by ears as audio message then perceived by the brain so that meaning can be constructed.

The last is salient aspect that suggests a meaning that spoken material is spontaneous and face-to-face discourse. It can be noticed and relevant to the discourse surrounding the topic.²⁷

Spoken language not only asks people to speak, but also asks the speaker to engage the listener in the conversation and make the conversation live.

b. Factors of Speaking

Many students think that speaking is a hard skill. So, what factors make speaking easy or difficult? There are some factors that influence speaking:²⁸

²⁴ Monica Cabtree and Joyce Powers, *Language Files Materials for An Introduction to Language*, (USA: Ohio State University Press, 1991), p. 7

²⁵ RichaRubiati, *Improving Students' Speaking Skill through Debate Technique*, (Semarang: IAIN Press, 2010) p. 7

²⁶ Listyaning S., Zulfa S., *Speaking for Instructional Purpose*, (Semarang: IKIP PGRI Press, 2007), p.9

²⁷ Listyaning S., Zulfa S., *Speaking for Instructional Purpose*, (Semarang: IKIP PGRI Press, 2007), p.9-10

1) Cognitive factors

Cognitive factors including familiarity with the topic, familiarity with the genre, familiarity with the interlocutors and processing demands.

2) Affective factors

Affective factors, including the feeling toward the topic and participants and self-consciousness

3) Performance factors

The last is performance factors, including mode, degree of collaboration, discourse control, planning also rehearsal time and environmental conditions. The way speaker speaks or conveys the message and idea is very important in speaking.

The above factors offer a useful template for predicting the degrees of fluency speaker are likely to achieve.

c. Speaking Elements

The aim of teaching English as foreign language is to make the learners are able to speak or communicate using target language, to transfer the idea and feeling fluently. To do that, they need to be able to pronounce phonemes correctly, use appropriate stress, intonation pattern and speak in connected speech.²⁹ On the other hand, students also need to be aware with the situation the conversation takes place. There are some speaking elements that must be mastered by language students:

- 1) Connected speech: good speaker not only produces the individual phonemes of English, but also uses fluent connected speech. In connected speech, sounds are modified, omitted, added, or weakened. It is for this reason that we should involve students in

²⁸ Scott Thornbury, *How to Teach Speaking*, 2005, p. 25-26

²⁹ Jeremy Harmer, *The Practice of English Language Teaching* (England: Pearson, 2007), p. 38

activities designed specifically to improve their connected speech.³⁰

- 2) Grammar: in speaking, grammar is not just concerned with syntax, the way words are formed and can change their form to show different meaning. Grammar can thus be partly seen as knowledge of what words can go where and what form these words should take. Grammar means knowing how different grammatical element can be strung together to make chains of words.³¹
- 3) Intonation and stress: intonation and stress are crucial factors in speaking. The use of intonation is to show the grammar of what we are saying. In example, rising tone of the last sentence usually indicates that this is a question. Vice versa, falling tone of the last sentence indicate that this is a statement. Intonation also used to convey the speaker's attitude and it also signals when speakers have finished the points and signals agreement and disagreement.³² Stress means the degree of force or loudness with which a syllable is pronounced so as to give it prominence.³³ Stress also can be predicted as the degree of loudness. Stress distribution cannot be predicted. Every word in English has its own stress pattern, which should be learned.
- 4) Speaking event: speakers should make a distinction between transactional and interpersonal functions. They should know "when, where, and what" they are talking about. Speakers should aware with the situation when they speak.³⁴

³⁰Richa Rubiati, *Improving Students' Speaking Skill through Debate Technique*, (Semarang: IAIN Press, 2010) p. 8

³¹ Jeremy Harmer, *The Practice of English Language Teaching* (England: Pearson, 2007), p. 32

³² Harmer, *The Practice of English*, p. 33

³³Ramelan, *English Phonetics*, (Semarang: UNNES Press, 2003), p. 25

³⁴ Harmer, *The Practice of English*, p. 343

Besides those four elements, Burns adds two more elements. (Burns, 1998:109) Important elements of spoken language are interactional competence and pragmatic consideration. Speakers have to be able to catch listener attention, using gesture, expression and use understandable words.

d. Aspects of Speaking

In presenting language, speaker cannot speak as he likes. Speaker should consider to the listener and some aspects of speaking. There are some aspects of speaking:³⁵

- 1) Pronunciation including the segmental features-vowels and consonants, the stress and intonation patterns.
- 2) Grammar as the rules for forming words and making sentences.³⁶ Grammar is not only about forming words to be sentences, but grammar also tells that a word can be a sentence in certain situation.
- 3) Vocabulary is the first modal for people to speak. Vocabulary means all the words with meaning that all people know and use.³⁷ Speaker needs to use understandable words and pronounce them well.
- 4) Fluency: the ease and speed of the flow of speech. Indeed, the term fluency is not only talks about the speed of speech, fluency also talks about the pause of speech. A fluent one not only talks quickly, but also pause the speech appropriately.
- 5) Comprehension. For oral communication certainly requires a subject to respond to speech as well as to initiate it.³⁸

³⁵ Harmer, *The Practice of English*, p. 34

³⁶ Victoria Bull, *Oxford Advanced Learner's Dictionary*, (New York: Oxford University Press, 1995), p. 193

³⁷ Victoria Bull, *Oxford Advanced Learner's Dictionary*, p. 494

³⁸ Richa Rubiati, *Improving Students' Speaking Skill through Debate Technique*, (Semarang: IAIN Press, 2010, 2010)

Comprehension can be the main point in speaking since it requires the skill of both speaker and listener.

The five factors of speaking skill above have important role in speaking. By mastering all the factors, people can produce good speech

e. Teaching English Speaking

Teaching language can be defined as the activities which are intended to bring about language learning.³⁹ Teaching language is divided into four language skills, speaking, writing, reading and listening.

Teaching speaking is activities which are intended to make students are able to speak in foreign language accurately, communicatively and bring the elements of speaking. According to Nunan (2003), teaching speaking is teaching learners to produce the English speech sounds and sound patterns, make them are able to select appropriate words and sentences according to the proper social setting, audience, situation and subject matter.⁴⁰

In teaching speaking process, teacher facilitates the students as their controller, prompter, participant, resource, and also tutor. As a prompter, teacher may be able to help the students and the activity to progress by offering discrete suggestion. If this can be done supportively without disrupting the discussion, or forcing students out of role, it will stop the frustration. Teacher as participant should be good animator when asking students to produce language. Sometimes this can be achieved by setting up an activity clearly and enthusiasm, also generally maintain a creative atmosphere. As a resource and tutor, teacher should take over the material. And teacher as controller should

³⁹ H.H Stern, *Fundamental Concepts of Language Teaching*, (New York: Oxford University Press, 1991), p. 21.

⁴⁰ <http://unr.edu/homepage/hayriyek> (accessed on 1/17/2014, 10:15 am)

take over the situation in a class. He has to be able to control students' activities in class.

Teacher should make students interested to abreast speaking activity and stimulate them to speak. The most important feature of a classroom speaking activity is to provide an authentic opportunity for the students to get individual meaning.⁴¹ This opportunity is hoped can make students interested in speaking since speaking is an important skill.

Harmer stated that there are three main reasons for getting students to speak in classroom:⁴²

- 1) Speaking activities can provide rehearsal opportunities chances to practice real life speaking in the safety of the classroom.
- 2) Speaking task in which students try to use any or all of the languages they know to provide feedback for both teacher and student. Everyone can see how well they are doing; both how successful they are, and also what language problem they are experiencing.
- 3) The more students have opportunities to activate the various brains, the more automatic they use of these elements become. As a result, students gradually become autonomous language users. This means that they will be able to use words and phrases fluently without very much conscious thought.

Many ways can be used in teaching speaking. Many ways are effective to teach speaking, depend on how does the teacher bring it into classroom and engage the students to the activity. Teacher should give students ample opportunity to participate in speaking activities where they need to participate by producing a word, a term, an

⁴¹ Marianne Celce-Murcia Elite Olshtain, *Discourse and Context in Language Teaching*, (USA: Cambridge University Press, 2000), p. 176

⁴²Jeremy Harmer, *How To Teach English*, (England: Pearson, 2007), p. 123

expression or a clause and not necessarily maintain a long stretch of conversation.⁴³

B. Previous Research

Considering the topic discussed in this thesis, there are some research have been done related to this topic are:

1. Lilik Jumarsih (05120011) under the title “*The effectiveness of Brain Gym method to improve mathematics comprehends.*” From Tarbiyah and Teacher Training Faculty, Sunan Ampel State Intitute for Islamic Studies. She did the research on 22 May 2011 at SDN Sadang Taman Sidoarjo. The similarities of this research are both of the researchs used experiment quantitative research and used test to collect the data. The result of this research, mean score in experimental group is greater than the mean score in the control group. She did the research on first year elementary school.⁴⁴ The differences from this research is this research purposed to know the effectiveness *brain gym* method to improve teaching English speaking skill and her research is mathematics comprehends. However, this research did in junior high school students level and her research did in elementary school students level.
2. Siti Afifah (0310014) “*Pengaruh Metode Brain Gym Terhadap Peningkatan Kecerdasan*” From Tarbiyah and Teacher Training Faculty, Sunan Ampel State Intitute for Islamic Studies. She did the research on May 28th 2007 at TK Yaa Bunayya 2 Surabaya. The similarity from this research is both of the researchs used brain gym method. The differences from this research are her research used correlation (descriptive quantitative) design, but this research used experiment quantitative design. She used observation, interview, and documentation to collect the data and this research used test to collect the data.⁴⁵

⁴³Celce- Olshtain, *Discourse and Context in Language Teaching*, p. 177

⁴⁴Jumarsih Lilik, “The Effectiveness of Brain Gym Method to Improve Mathematics Comprehends”, *Thesis*, (Surabaya: Sunan Ampel State Institute for Islamic Studies, 2011).

⁴⁵ Sa'idah Nur, “Efektivitas Brain Gym dalam Mengatasi Kejenuhan Belajar (*Learning*

C. Hypothesis

Hypothesis consists of words hypo and thesis. Hypo is under or less or weak. Thesis is theory or proposition that showed as a proof.”⁴⁶ Hypothesis is a temporary answer of problems in research until proved from the data which collected.⁴⁷ So, hypothesis can define a weak truth statement towards problems on research and need to prove the truth after collecting data. This study is conducted based on the following hypothesis:

“Brain Gym Method is more effective than conventional method in improving students’ speaking skill among first year students of SMP N 1 Dawe.”

Plateau)”. *Thesis*, (Surabaya: Sunan Ampel State Institute for Islamic Studies, 2009).

⁴⁶Sutrisno Hadi, *Statistik*, Vol. 2, (Yogyakarta: Andi, 2004), p. 210.

⁴⁷Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktek*, (Jakarta: Rineka Cipta, 1998), p. 64.