The Effect of Corpus-based Activities on Verb-Noun Collocations in EFL Classes

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ABSTRACT
This current study sought to reveal the impacts of corpus-based activities on verb-noun collocation learning in EFL classes. This study was carried out on two groups – experimental and control groups each of which consists of 15 students. The students were preparatory class students at School of Foreign Languages, Osmaniye Korkut Ata University. Before the treatment, a pretest was administered to both groups. The results of the pretest demonstrated that there was not significant difference between the control and the experimental group. Throughout the study, the experimental group was taught verb-noun collocation through corpus-based materials taken from COCA, and the control group was taught through a conventional method. The results demonstrated that there is a statistically significant difference between experimental and control group in terms of the type of treatment, which signifies that corpus-based activities has a significant impact on verb-noun collocations in EFL classes.

Keywords: verb-noun collocations, corpus-based materials, concordancing lines

INTRODUCTION
Vocabulary plays a vital role in foreign language learning. Nation claims that “words are the building blocks of a language since they label objects, actions, ideas without which people can not convey the intended meaning.” (as cited in Zahedi and Abdi, 2012, p.2273). Wilkins (1992, p.111) claims that “little can be conveyed without grammar but nothing can be conveyed without vocabulary.”

Vocabulary knowledge consists considerably more than just knowing the word isolation; it also consists knowing the words that tend to co-occur with it. These patterns are called collocations. (Celce Murcia, 2001, p.262). Collocation refers to “the regular co-occurrence of words within a given span demonstrating a statistical strength of co-occurrence.” (Webb, Newton and Chang, 2013, p. 92). Lewis stated that “language consists not of traditional grammar and vocabulary, but often of multi-word prefabricated chunks.” (as cited in Rahimi and Momeni, 2012, p.38). Therefore, collocations are an indispensable part of vocabulary knowledge in foreign language contexts.

There are a variety of techniques to teach vocabulary and collocations as collocation teaching has been a highly problematic area for foreign language learners. Among a great many of approaches, Sinclair stated that corpus-based materials are the newest and the most informative since a huge amount of data can be analysed quickly through a corpus (as cited in Binkai, 2012, p.131). Among the researches related to corpus-based activities on teaching vocabulary, Binkai (2012) concentrated on the vocabulary learning in English through corpus-based contexts. The study discussed the usage of corpus in teaching and learning vocabulary.

The findings demonstrated that corpus-based method is benefical for vocabulary learning and can enhance the learning autonomously concurrently. Another research conducted by Chao (2010) investigated whether corpus-based activities have an effect on high school students’ collocation learning. The results demonstrated that corpus-based activities are helpful in learning collocations.

However, there are highly limited studies conducted concerning the impact of corpus-based activities on collocation teaching in EFL context. This current study was intended to investigate whether corpus-based activities have an effect on teaching verb-noun collocations in EFL classes.

LITERATURE REVIEW
A few empirical studies were conducted about dealing with the issue of how collocations could be most effectively acquired in foreign language learning context. Among the researches conducted, Sun and Wang (2003) investigated the impact of inductive and deductive approaches in order to learn grammatical collocations through concordancer programme on Taiwanese senior high school students. The researchers divided the learners into two groups; deductive and inductive groups. The deductive group was given rule explanations with
examples, on the other hand, the inductive group was required to infer the patterns by the help of concordances. The findings demonstrated that inductive learning of collocation with concordances were more effective than deductive learning.

Another study conducted by Chan and Liou (2005) focused on collocation learning through Web-based concordancing. The results demonstrated that explicit online instruction was found to have an effect on increasing EFL learners’ collocation knowledge via concordances. Moreover, another study conducted by Jafarpour and Koosha (2006) aimed to find out whether concordancing materials through data-driven learning (DDL) have an impact on teaching collocations of prepositions. The first group had a traditional treatment, on the other hand, the second group had a treatment through DDL supported by concordancing lines. The results showed that concordancing lines through DDL was highly effective in teaching collocations.

Additionally, Chujo, Utiyama and Miura (2006) conducted a study in order to investigate the impact of Japanese-English bilingual corpora on beginner level learners’ vocabulary development. The findings displayed that even lower level learners were able to use the concordancing tool for learning vocabulary. In another study, Moreover, a study conducted by Varley (2009) indicated that students had a positive attitude towards making use of corpus in the field of vocabulary acquisition and noticing syntactical patterns. The results showed that learners were also willing to use the concordancing tool in the future. In another study, Binkai (2012) investigated to find out whether the usage of corpus-based model for vocabulary learning has an effect on learners autonomy of Chinese EFL students. The empirical study showed that concordancing lines were found to be a great help in understanding collocation, colligation and prosody of the search word. According to the findings, the corpus-based study is beneficial for vocabulary acquisition and can contribute to self-governing learning.

In light of these researches, the current study aimed to examine whether the corpus-based activities have an effect on teaching adjective-noun collocations in EFL context. The study tried to answer the research question below:

1. Is there a difference between the verb-noun collocation competence of EFL students who received the instruction through corpus-based activities and those who received the traditional teaching method?

**METHODOLOGY**

This current research aimed at determining whether corpus-based activities have an effect on collocation teaching in EFL classes. Therefore, this study examined the difference between experimental group taught collocations through corpus-based activities and the control group taught collocations through traditional method. In this part, the participants, the instruments and data collection procedure were discussed in detail.

**Participants**

The research was conducted with 30 preparatory class students at Osmaniye Korkut Ata University, School of Foreign Languages. The students were majoring in different departments such as the department of Turkish language and literature, business administration, electrical and electronic engineering, food engineering, civil engineering, energy systems and chemical engineering. As this study was conducted in the second term, after taking a proficiency exam about their language level at the beginning of the second term, it was determined that students were on the level of pre-intermediate level. The study was supervised by the researcher herself on prep A (experimental group) and prep C (control group). The experimental group was made up of 15 students and and the control group was also 15 students. The ages of the participants ranged from 19 and 24.

**Data Collection Instruments**

In this current study, 15 collocations were taken from students’ maincourse book called “Speak Out Intermediate” published by Pearson were verb-noun collocations.

The “collocation test” designed by the researcher herself was used as a pre-test before the treatment. Then students went under treatment and were given the same test as a post-test. 15 questions in the form of multiple choice were prepared including target collocations in order to measure the collocation competence (recognition) of students. The instrument was checked by the three proficient EFL instructors and piloted to a group of preparatory class students including 20 students for validity and reliability. (reliability, .608)

The materials used in this present study were also corpus-based activities, concordance lines, and a corpus of COCA.
Procedure

The experiment was conducted at School of Foreign Languages in Osmaniye Korkut Ata University at the end of second term of 2013-2014 academic year. The participants were randomly classified into two groups: experimental and control groups. The pre-test (collocation test) was applied to both of the groups by the researcher in May (Appendix A). During the procedure, the 15 target collocations which were chosen from students’ maincourse book, ‘Speak Out Intermediate’, were taught in the experimental group by the help of corpus-based activities. The instructor made use of concordance lines taken from the corpus COCA to teach collocations and designed by herself some exercises for students to practise from the sentences in the concordance lines.(Appendix B, C). Additionally printed worksheets of verb-noun collocations were given subjects as follows:

Neverthless, because of the time constraints, only two two-hour sessions of treatment were possible. On the other hand, in the control group, target collocations were taught explicitly through dictionary meanings and exercises taken from students’ coursebook.(Appendix D) After the procedure, the collocation test was also used as a post-test administered to both groups. It provided as a basis for the results of experimental group.

Data Analysis

The results gathered from the pre-test and post-test were analyzed using SPSS (Statistical Package for Social Sciences), version 16.0. An Independent t-test was applied in order to see whether there was a statistically significant difference or not between the experimental group and the control group. Additionally, a Paired Sample t-test was used so as to compare differences within each group.

DATA ANALYSIS

Concerning the research question, the current study was intended to investigate whether the corpus-based activities (concordancing materials) have an effect on teaching verb-noun collocations (V-N) of EFL students. This study was conducted in order to investigate the difference between the experimental group taught collocations through corpus-based activities (concordancing materials) and the control group taught collocations through traditional method. (dictionary meaning and exercises from students’ coursebook)

Comparison of pre-test scores, experimental and control groups

An independent sample t-test was conducted in order to investigate the difference between the control group and the experimental group in terms of students’ awareness of collocation at the beginning of the research. Table 1. demonstrates the results of independent sample t-test analysis for pre-test scores of experimental and control groups.

Table 1. Independent Sample T-test Analysis for Pre-test Scores of Experimental and Control Groups

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the Difference</th>
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</thead>
<tbody>
<tr>
<td>Control group</td>
<td>30,80</td>
<td>15,893</td>
<td>-1,999</td>
<td>28</td>
<td>.844</td>
<td>-1,067</td>
<td>5,360</td>
<td>-12,045 - 9,912</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>31,87</td>
<td>13,352</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Table 1 demonstrated that the findings produced non-significant results. To be more specific, there is not a statistically significant difference between the experimental group and the control group with regard to the pre-test scores of students awareness of collocation in the control and experiment groups at the beginning of the study. \( t(28) = -1.99, p = .844 \). Therefore, it is concluded that the participants in each group were equal with respect to their collocation competence at the beginning of the study.

Comparison of pre-test, post-test scores, experimental group

A paired-sample t-test was also conducted to compare the mean scores of pre-test and post-test of collocation test for both control group and experimental group in order to find out whether corpus based activities are helpful in developing students’ collocation learning or not. Table 2 shows that the results of paired-samples t-test analysis for the experimental group below:

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>The pre-test overall scores</td>
<td>15</td>
<td>31.87</td>
<td>13.352</td>
<td>-4.481</td>
<td>14</td>
<td>.001</td>
</tr>
<tr>
<td>The post-test overall scores</td>
<td>15</td>
<td>65.93</td>
<td>20.126</td>
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</table>

According to Table 2, the findings indicated that there is a statistically significant difference between pre-test \( (M = 31.87, SD = 65.93) \) and post-test \( (M = 65.93, SD = 20.126) \) scores of experimental group with regard to collocation test scores, \( t(14) = -4.481, p < .005 \). Therefore, it can be said that the instruction through corpus-based activities (concordancing) were found to be significantly affecting students’ learning verb-noun (V-N) collocations in the current study.

Comparison of pre-test, post-test scores, Control group

Table 3 demonstrates the results of paired sample t-test analysis for the pre-test and post test scores of the control group below:

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>The pre-test overall scores</td>
<td>15</td>
<td>30.80</td>
<td>15.893</td>
<td>14</td>
<td>-1.946</td>
<td>.072</td>
</tr>
<tr>
<td>The post-test overall scores</td>
<td>15</td>
<td>41.20</td>
<td>15.608</td>
<td></td>
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As Table 3 indicates, the findings yielded to non-significant results. To be more specific, there is not a statistically significant difference between collocation pre-test \( (M = 30.80, SD = 15.893) \) and post-test \( (M = 41.20, SD = 15.608) \) scores of control group in terms of verb-noun collocation learning, \( t(14) = -1.946, p = .072 \). It can be concluded that the conventional instruction was found not to have a significant effect on verb-noun collocation learning although there was an increase from the mean scores of pre-test overall scores to the post-test scores in the control group.

Comparison of post-test scores, experimental and control groups

An independent sample t-test was performed in order to compare the post-test mean scores of two groups (control and experimental groups) to investigate whether there was a significant difference between these groups regarding to the type of the treatment. Table 4 shows the results of the difference between the groups below:

<table>
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<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Control group</td>
<td>41.20</td>
<td>15.608</td>
</tr>
<tr>
<td>Experimental group</td>
<td>65.93</td>
<td>20.126</td>
</tr>
</tbody>
</table>
Table 4 indicated that there is a statistically significant difference between the collocation post test scores of control group (\(M=41.20, SD=15.608\)) and experimental group (\(M=65.93, SD=20.126\)) with respect to the type of the treatment. (\(t(28)=-3.761, p<0.05\)). Therefore, it can be concluded that those who received instruction through corpus-based activities showed significantly higher performance in the collocation test to those who received instruction in the conventional approach.

**DISCUSSION AND CONCLUSION**

This present study was intended to examine the difference between experimental group taught verb-noun collocation through corpus-based activities (concordancing materials taken from COCA as the concordancing) and the control group taught verb-noun collocations through a traditional method based on dictionary meanings and activities taken from students’ coursebooks. The quantitative data were gathered from students’ pre-tests and post-tests which were administered respectively. The participants in each group were similar in terms of their collocation competence before the treatment. After the treatment, the post-test was administered to students in order to determine the impact of corpus-based instruction the participants received. The findings have demonstrated that the instruction through corpus-based activities (concordancing) were found to be significantly affecting students’ learning verb-noun (V-N) collocations in the current study. Therefore, students who received instruction through corpus-based activities showed significantly higher performance in the recognition of collocation test to those who received instruction in the traditional method.

The results obtained from this current study is consistent with the previous researches that have found the impact of corpus-based studies on collocation teaching over the traditional method. (Sun and Wang, 2003; Chan and Liou, 2005; Jaefarpour and Koosha, 2006; Chujo, Utiyama and Miura, 2006; Liu and Jiang, 2009; Le, 2010; Binkai, 2012, Jafarpour, Hashemian and Alipour, 2013). All of these researchers have investigated to determine the effectiveness of corpus-based studies on vocabulary and collocation development in the last decades. Jafarpour, Hashemian and Alipour (2013) conducted a study in order to compare the impacts of the corpus-based studies over the conventional method. The findings demonstrated that the instruction based on corpus-based method has positive effects on the experimental group with respect to comprehension and production of collocations. Chan and Liou (2005) also investigated the effectiveness of making use of web-based concordancing on English verb-noun collocations by the help of a web-based Chinese-English bilingual concordancer. The results indicated that learners improved their collocations significantly after the treatment in the study. Another research was the one carried out by Jafarpour and Koosha, (2006), examining the impact of corpus on teaching collocations of prepositions. The result showed that concordancing lines through DDL was beneficial in improving collocations of prepositions. Sun and Wang (2003) investigated the effect of concordancer programme to learn grammatical collocations, verb+preposition collocations. The findings showed that concordancing was effective in collocations learning.

Therefore, all these studies are line with the results gathered from the current study and concerning the findings, this empirical study proved that students’ overall verb+noun collocation competence was improved significantly by the help of the corpus-based studies which provides a variety of authentic examples taken from the corpus.

**Implications of the Study**

Collocations are an indispensable part of vocabulary knowledge in foreign language contexts. The findings of the current study suggest language teachers practical clues and insights so as to manage EFL students’ problems in learning collocations. Language teachers can make use of corpus based materials and introduces these activities in printed worksheets to foreign language students in order to make students more eager integrating the corpus into English language teaching.

It is also crucial for material developers and curriculum designers as they can design materials integrating concordancing programs and corpus-based activities in language programs in order to promote language learning, especially vocabulary learning.

**Suggestions for Further Research**

This study provides two suggestions for further studies in the field of collocation learning. First of all, future researches could focus on the impact of other types of collocation patterns of language such as grammatical collocations like verb+preposition collocations or lexical collocations like adjective+noun collocations or teaching other skills (grammar points, writing etc.). Furthermore, as this study was conducted with pre-intermediate level EFL students, future researches could concentrate on the effectiveness of corpus-based activities on more proficient level students from different backgrounds (students learning English as a second
language or for academic purposes) in order to examine whether there would be the same results for students from different backgrounds.

Limitations of the Study
This current study was limited in the following two ways. The first one was the small size of the participants; only thirty students (15 for control group; 15 for experimental group) participated in the study. More participants might have been generalizable to the population. Another limitation was that the treatment was made up of two two-hour sessions to teach verb+noun collocations due to the time constraints. More sessions might have revealed more significant results.

REFERENCE
APPENDIXES

Appendix A

**Collocation Test** (as pre-test and post-test)

1. My hope is to find a new home for Lucifer, but that will ______ some time to get it.
   a. get  b.take  c.make  d.have

2. Men and women who want freedom and growth should _______ action immediately.
   a. make  b.go  c.come  d.take

3. Every American president in the last 30 years has tried to ______ a deal with Iran.
   a. have  b.see  c.make  d.get

4. Disease Control and Prevention report that more than 200,000 Americans ______ food poisoning every single day.
   a.get  b.have  c.do  d.make

5. If the boss wanted to see him, he was probably going to ______ fired.
   a. go  b.get  c.come  d.take

6. When people stand behind their decisions, they are going to _______ responsibility for them.
   a.be  b.decide  c.take  d.make

7. If people stare at the sun long enough, they will ______blind because our eyes are very sensitive.
   a.get  b.have  c.take  d.go

8. If you start to get too many things in your head, you will _____crazy.
   a.have  b.make  c.go  d.take

9. People can _______a donation to help poor people. No matter how small, even ten dollars can be enough for them.
   a.give  b.make  c.take  d.do

10. Heavy smokers lose their health. The are more likely to _______ a disease of lung cancer in the future.
    a.give  b.have  c.make  d.decide

11. I couldn’t hear what he said. He was so distant from me. So, I needed to _____closer to hear him better.
    a.give  b.do  c.come  d.make

12. One of the male respondents described it as "the power to _______ orders." A woman explained it more fully: "Power can be to order.
    a. see  b.give  c.do  d.make

13. There are a lot of different reasons why kids might _______depressed, so depressed that they're willing to kill themselves.
    a. go  b.have  c.get  d.make

14. You have to make a living and if you're smart you can _______ a fortune in a short time.
    a.make  b.take  c.get  d.do

15. Politically motivated people in the State Department decided to _______ an attempt to find that letter.
    a.do  b.give  c.make  d.decide
Appendix B  Screenshots from Concordance Lines

you have to make a living and if you're smart you can make a fortune, you know. KILMEADE: Right. GUTTENBERG: And most of the time you're I ≠ MEDBOURNE: I've just thought of a surefire way to make a fortune. I'll supply the East Indies with ice by harnessing a team of whales admit, and self-doubt had begun to creep in. We didn't make a fortune at Donut Hearts on our best days, and there was a fine line between . The people would get to work on time. The driver would make a fortune. The light turned amber. He accelerated, in the same instant pressing I keep it a secret? "asked my mother. "He could make a fortune." ≠ "Only fools think only about money!" said my father from the recession. Greg Rand, author of Crash Boom! Make a Fortune in Today's Volatile Real Estate Market, indicates that there are five tren with that money, and, if they pay off, it can make a fortune and pay big bonuses? SIMON-JOHNSON: Yes, absolutely, make money, get penchant for pulchritude has gotten him in to trouble before and helped him make a fortune. But before we get to that it helps to know about his carbon dioxide, and they'd ban alcohol too if they didn't make a fortune in tax revenue on Yoobie beer. Not only have they failed to solve proble Gold Rush," she'd said, "die real way to make a fortune was in farming. And unless they're planning to ship food out here forever , Arabic, or anything else. It was telling me how to make a fortune investing in foreclosed properties. Not something a serape-draped senry you map, Atkin says, maybe add population data, and you could make a fortune. He himself has just returned from Ukraine, and Bidwells has been i running red lights, making illegal turns, etc. The city would make a fortune. ≠ If I were king, I would enact the following rules: Eliminate up in the Sierra Nevada. Her customers are rough miners trying to make a fortune. They are all in love with her, and each believes he is the each device. But most company watchers think that Bezos is positioned to make a fortune on the device. Barclays Capital predicts Kindle device one-time New York Times reporter who left journalism in the early 1980s to make a fortune on Wall Street. ≠ He also emerged as a champion p would ever have dreamed that in antebellum America, a black man could make a fortune as a ventriloquist and a magician. These people - Alic

≠ 5. SIIAKI-ULIX; ≠ No matter your mode of transportation, make an attempt to walk around for five to 10 minutes every two hours. I am not going to be interested in a man that doesn't make an attempt to -- I know this sounds terrible. KOTBI: Right. Say it. they knew how he slaved over each sentence? Would they at least make an attempt to keep from falling asleep? ≠ You couldn't lie Director in all department meetings, emails, and other communications. We make an attempt to touch base with each other daily, eclipsed by the headlines. But even so, it was necessary to make an attempt. And not merely (now I understand) because of my i Macy's bag that he's come to make a return. Make an attempt, that is. "Hello, Evelyn," says Harry Ibis in his delinquents in the AGKCIK. The primary goal of these activities is to make an attempt for the decarceration of the young delinque over, you know, the George Washington Bridge and was going to make an attempt to land in the water. VAN-SUSTEREN: Well, ple We decided that I would move up closer to Gainesville and we would make an attempt at a more serious, stable, committed relat We have been here five days now. And, every time we make an attempt to call the president's office, we're given one excuse or . That everybody should speak English. But that we're gonna make an attempt to speak their language, as well. TERRY-MORAN-1: that's not what's going to happen. They are going to make an attempt somebody who might have run guns or sheltered a terrorist to predict the Final Four and the champions? SULLIVAN: I'm make an attempt here, but I think Yukon is the most talented team in the Oval Office, to make one last pass at getting Bush to make an attempt at true diplomacy in the Middle East. ≠ Bush may have a friend? Whatever Matt expected, Cehill could not bring himself to make an attempt to contact him- at least, not at this point in ti . And as we zip up our flies, Harris and I barely make an attempt to see him. "That's my point, " I whisper to Harris in that some of the spyware is incredibly sophisticated. And you'll make an attempt to delete it, it may look like it's gone, it may c the ball might drop that Walker decided he must tag from third and make an attempt to score. It was a desperate decision. Ram
Appendix C  Exercises taken from Concordance Lines

Cloze Activity
Fill in the gaps with the correct verb collocating highlighted nouns.
1. I am always depressed and whenever (rarely) I'm happy, I _______ depressed immediately.
2. I'm scared. I'm scared I'm going to _______ fired.
3. The people would get to work on time. The driver would _______ a fortune.
4. My eyes _______ blind in the salty surf.
5. But it's your responsibility to _______ action to do that.

Spot the Error Activity
Spot the error in highlighted collocations
1. She actually went to a place where he would have food poisoning on purpose
2. We have been here five days now. And, every time we do an attempt to call the president's Office
3. If I did it, he would do crazy
4. The referee's job to make the call and the coach's job to say orders.
5. If you pay a donation and I give you stamps.

Multiple Choice Test
Choose the correct answer.
1. But in fact, we _______ a disease treatment system more than a health care system these days.
   a. get  b. do  c. have
2. Did you _______ a deal with him?
   a. make  b. have  c. do
3. I could _______ some time off. I could do some movies.
   a. Have  b. take  c. do
4. We _______ responsibility for our actions; we do our best in everything.
   a. Take  b. sign  c. be
5. we see a little boy start to approach, _______ closer and closer, gets involved in a conversation.
   a. approach  b. see  c. come
Appendix D  Exercises taken from Coursebook

**Come**
- **closer** (move towards)
- **a long way** (travel)
- **in blue** (be produced/sold)
- **over** (visit)

**Have**
- **210 pages** (contain)
- **memories** (thoughts)
- **a disease** (illness)
- **a choice** (opportunity)

**Give**
- **advice** (tell someone something)
- **a donation** (present)
- **responsibility** (allow)
- **me a shock** (cause feelings)
Make

- a list
  - (produce)
- an attempt
  - (try)
- a deal
  - (collaborate)
- a fortune
  - (get money)