

## The Effect of Text-Generation on EFL and ESL Learners' Performance in Incidental Vocabulary Learning

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### **Abstract:**

The main aim behind the present study was to explore the effect of text-generation on incidental vocabulary learning in EFL and ESL contexts. The total number of one hundred and thirty two male and female students participated in the study.

Homogeneity of the subjects was ascertained by a TOEFL test. A multiple-choice vocabulary test, developed based on the target vocabulary items in the twelve selected passages, was used as a pre-test and post-test. In the treatment period, students were presented with scrambled texts. Clearly, the target vocabulary items were underlined. The subjects were told to rearrange the sentences into the sequence that made the maximum sense to them (text-generation). While performing the task, students were supposed to guess the meanings of those vocabulary items. Data analysis manifested that those students who are in ESL context scored significantly higher than their peers in EFL context. Further, it has been revealed that text-generation had significantly impact either on EFL or EFL learners in incidental vocabulary learning.

**Key words:** *text-generation, incidental vocabulary learning, EFL, ESL*

### **1.Introduction:**

In connection with word learning, a distinction is commonly drawn between incidental and intentional learning. Unless one narrowly defines incidental learning as excluding any conscious attention to the words being learned (Singleton 1999, p. 274), the two learning modes are not always easy to differentiate and show a considerable overlap, not unlike the acquisition/learning dichotomy suggested by Krashen. Generally, intentional learning is used to refer to any learning activities the learner undertakes with the intention of gaining new knowledge. As such it differs

from incidental learning where there is no such intention (Anderson, 1990). From a pedagogic perspective, however, the distinction is still useful in a discussion on the optimal way of presenting new L2 words in instructional contexts.

Most words in first language acquisition are learned incidentally in an incremental way because the language learners come across them frequently in a wide range of contexts (De Bot, Paribakht, & Wesche, 1997; Nagy & Herman, 1987). In a short space of time, a large number of words are thus learned and this lexical repertoire then forms the basis for learning other new words. In the case of foreign language acquisition in instructional contexts, this process is virtually impossible to simulate. The exposure to new words is considerably less intensive and varied. Undoubtedly, a limited number of high frequency words can be learned incidentally but that will certainly not be possible for the much larger number of less frequent words that must subsequently be learned if one wishes to speak of functional proficiency. To solve this problem it has been suggested that learners be exposed to authentic L2 material and trained in communicative strategies such as contextual deduction of the meaning of new words so that incidental acquisition can take place, thus partially copying the L1 acquisition process (Krashen, 1989).

Laufer and Hulstijn (2001) expressed that in incidental vocabulary learning, learners are typically required to perform a task involving the processing of some information without being told in advance that they will be tested afterwards on their recall of that information. In contrast, participants in an intentional learning situation are told in advance that their recall will be tested afterwards. For example, subjects are given a list of words and asked to correct any spelling errors. Afterwards they are tested on the recall of all the words in the list. Another technique of investigating incidental learning is to ask subjects to learn something, but no information targeted for subsequent testing. For example, we give subjects a text to read and tell them they will be asked to recall the contents of the text. However, what the subjects are not told in advance is that the text contains some unfamiliar words and that they will be tested afterwards on their recall of these words.

Roediger (1992) believes memory in L<sub>2</sub> learning is given special importance. The appreciation of the importance of vocabulary in the acquisition of the L<sub>2</sub> language and the importance of

memory in the concept of learning has led to considerable research in each. One way which can enhance the memory is called generation. Subjects are more likely to remember those items which they have generated, rather than the items they just read and memorized. In fact, as McDaniel (1986) says there is special advantage of learning by doing. It produces better memory. As the main aim of the present study is to investigate the possible impact of text-generation on leaning incidental vocabulary, therefore it is worth mentioning that interest in sentence-scrambling exercises derives from the general interest in text manipulation. It is used as a way of examining text structure and as a teaching/learning aid in a holistic approach to language learning.

### **1.1 Context:**

Context is a pervasive and potent force in any learning event i.e., learning is related to the environment in which it takes place. It is the learning environment which includes opportunities for learners to engage in meaningful social interaction with users of the second language. Gu (2003) believes that learning context refers to the learning environment. The learning context can include the teachers, the peers, the classroom climate, the family support, the social cultural tradition of learning, the curriculum, and the availability of input and output opportunities.

#### **1.1.1 EFL Context versus ESL Context:**

Zhan-xiang (2004) believes, since learning in EFL and ESL contexts require different materials, syllabuses, and pedagogy, therefore, the EFL/ESL distinction has been an important issue in language pedagogy for many years. In an ESL context, the language is learnt for immediate application. It is used as a means of communication. It is a reference to a situation where English becomes the language of instruction in the schools, as in Philippines or a lingua franca between speakers of widely diverse languages, as in India. In contrast, the language neither is learnt for immediate application nor used as a means of communication in an EFL context. It is learnt for educational purpose, job opportunities and increasing the possibility of higher education. Communication in spoken or written form is low priorities in an EFL situation.

Obviously, EFL in comparison with ESL learners, are not developing their lexicons to the levels which would permit them to function adequately in many English language contexts. They often

lack an adequate amount of oral or written input since they are taught the knowledge of the language not for day to day communication or immediate application. They just learn the language for a better job opportunity or for higher education, therefore, their vocabulary lacks efficacy.

The present study, by considering text-generation, investigates the performance of ESL and EFL learners in acquiring incidental vocabulary. Therefore, the following hypothesis is formulated:

*There is no significant difference between incidental vocabulary learning through text-generation in EFL and ESL contexts.*

## **2. Methodology:**

### **2.1. Participants:**

The present researcher invited 120 M.A students both male and female to participate in current. Forty- two students took part in the pilot study to make sure the right difficulty level of the target vocabulary. The remaining, seventy-eight students, from three intact classes, comprised three groups as follows:

The first group was from EFL context. They were Iranian students, studying at Islamic Azad University in Arak, Iran. Their mother tongue was Persian.

The second group from ESL context consisted of Indian students from the Institute of Advanced Studies in English in Pune, India. Their mother tongue was Marathi.

The third group consisted of Iranian students in ESL context who were studying at Poona College and Wadia College in Pune, India. Their mother tongue was Persian

### **2.2. Instruments:**

#### **2.2.1. Tests**

In order to reach an ideal conclusion and accomplish the designed outcome for this study, two tests were applied during the research.

Initially, a general English proficiency test (TOEFL) adopted from *Barron's how to prepare for the TOEFL 2006*, was administered. The test consisted of 60 items on structure, vocabulary, and reading comprehension. It was administered in order to make sure of homogeneity. Further, it

was intended to act as a criterion to validate (concurrent validity) the multiple-choice vocabulary test.

Afterwards, a multiple-choice test composed of thirty items based on the target vocabulary items in the selected texts was developed. It was meant to test three groups before the treatment to determine their current level of vocabulary.

This test was used as a pre-test before the treatment and also post-test after the treatment to draw a conclusion on the likely progress of the subjects.

### **2.2.2. Texts:**

Taking into consideration the level of the students as well as their interests, twelve passages (see Appendix 1) were selected from the same TOEFL book which was used to test the general English proficiency test of the subjects.

To find adequate, authentic and valid texts, the researcher as a member of the teaching staff and with the help of some other specialists in the field came to an agreement that the same TOEFL book which was used to test the students' general proficiency was appropriate enough for the passages. Hence, all the twelve passages were chosen from the same TOEFL book. Passages related to different topics were chosen with an attempt to make them attractive for the subjects. Afterwards, the Fog index of readability scale was utilized to get the readability of each text. The mean readability was estimated as 25.68315, which made the researcher sure to go on

### **2.2.3. A Background Questionnaire:**

To have homogeneous participants and to prevent the effect of some interval variables such as social class, age and bi/monolinguality status a background questionnaire was developed by the investigator. In other words through this questionnaire the investigator could elicit demographic information concerning the above-mentioned variables.

### **3. Procedures:**

To accomplish the purpose of the study, the following procedures were carried out:

First of all, three intact classes (Indian students in India, Iranian students in India, and Iranian students in Iran) were selected. In all these three groups both male and female students participated. All of them were English undergraduate students (senior). The main reason behind selecting this level of students is that learners in this level (upper-intermediate to advanced) as

Murica (2007) believes are expected to have a particular level of mastery sufficient for performing incidental vocabulary learning through the problem solving task of text-generation easily .

Then a standard general proficiency TOEFL test (BARRON'S how to prepare for the TOEFL 2006, Model test 1) was considered to determine the homogeneity of the subjects with a specific level of proficiency in English. Further, it was intended to act as a criterion to validate (concurrent validity) the vocabulary test which was developed by the researcher. As Farhadi, et al (1994) mentioned, concurrent validity is a method to obtain the validity of a newly developed test. To this aim, the newly developed test was administered along with the criterion measure to the same group. In other words, to obtain concurrent validity, a test developed to measure a particular trait was administered concurrently with another well-known, reputed test of which the validity has already been established. The two sets of scores, obtained from the newly developed test and the criterion measure, were then correlated. The degree of the correlation was an indication of the concurrent validity of the test.

After administration of this general proficiency TOEFL test, one-way ANOVA was run. The result of one-way ANOVA indicated that the three groups did belong to the same population at the beginning of the research. Therefore, the continuation of the study was considered to be plausible.

The next step was text selection. All the twelve passages were chosen from the same TOEFL book which was used to test the students' general proficiency. Passages related to different topics were chosen with an attempt to make them attractive for the subjects. To make sure of attractiveness of the passages, twenty different passages were given to three colleagues and some students. Finally there was a consensus that twelve out of twenty passages are the most attractive ones.

The next step was to highlight some of the vocabulary items of the selected passages. To do this, the researcher and two other colleagues who had enough experience of teaching at this level agreed upon forty-five vocabulary items which were likely to pose difficulty for the learners. This list was given to ten students who were at the same level to see whether they were difficult for them or not. It was found out that thirty out of forty-five vocabulary items were complicated.

Then, the investigator piloted the test with 15 students with the same level and similar characteristics to those of participants of this study. The results indicated that these vocabulary items (for example: communal, nuance, abolitionist, recreation,...) were difficult enough for them to be considered in the current study. Therefore, they were underlined in the passages as the target vocabulary items.

Then a test of thirty multiple-choice items was developed by the researcher using the above-mentioned vocabulary items. To standardize it, a pilot study was done by fifteen students who shared the same characteristics as those of the main subjects of the study. Moreover, a special attention was paid to its different kinds of validity (e.g. content validity, face validity and concurrent validity). Its reliability was also estimated by the KR-21 formula. And a reasonable range of reliability was found (.71). All the three groups took this multiple-choice vocabulary test as the pre-test. The purpose was to assess the subject's prior knowledge of vocabulary, and also to ensure that there were no significant differences among the members of the groups regarding the target vocabulary reservoir before the experiment.

In the treatment period which took 6 sessions and was done by the present investigator, students were presented with scrambled texts. Obviously, the target vocabulary items were underlined. They were requested to rearrange the sentences into the sequence that made the maximum sense to them (text-generation). Then the organization of the passages was checked by the researcher and the correct order was given. While organizing the randomly ordered sentences into well-written paragraphs, students were requested to guess the meaning of those underlined vocabulary items.

At the end of the experimental treatment period, all subjects were tested immediately to determine post treatment knowledge of vocabulary. That is to say, the performances of all the three groups were compared and contrasted to examine whether the null hypothesis is supported or rejected. Therefore, a significant post-test mean difference between the three groups has been observed. Consequently, the null hypothesis was rejected.

It is worth noting that all the tests have been piloted with 15 students who shared similar characteristics as those of the main subjects of present study. And applying KR-21 formula ensured the investigator of high reliability of the tests to go on.

**4. Results and Conclusion:**

Before starting the treatment, a general English proficiency test (TOEFL) was administered to all the three groups. Table 1 shows the result of one-way ANOVA in the general proficiency test.

**Table 1**

**ANOVA**

Proficiency Test

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16.692	2	8.346	.120	.887
Within Groups	5213.269	75	69.510		
Total	5229.962	77			

It is clear that the abovementioned groups did not differ significantly in general English proficiency, as the obtained F value was found to be non-significant ( $F=.120$ ;  $p<.887$ ). That is to say, no significant proficiency test mean differences between the three groups were seen. Hence, it can be claimed that all the three groups are homogeneous from general English proficiency knowledge.

Afterwards, teacher-made vocabulary test was used as a pre-test. Table 2 shows the result.

**Table 2**

**ANOVA**

Pre-test

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15.308	2	7.654	.301	.741
Within Groups	1904.846	75	25.398		
Total	1920.154	77			

As it is clear, F-value was non-significant ( $F=.301$ ;  $p, .741$ ). That is to say, no significant pre-test mean differences between the three groups were seen.

After the treatment the same pre-testing instrument (multiple-choice vocabulary test) was utilized to check the students' performance in the post-test. The result is indicated in table 3.

**Table 3**

**ANOVA**

Post-test					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	268.692	2	134.346	3.554	.034
Within Groups	2834.962	75	37.799		
Total	3103.654	77			

Here, a significant post-test mean difference between the three groups has been observed. That is to say, the three groups scored differently on the post-test. And the difference was statistically significant. Consequently, the null hypothesis is rejected.

Repeated measure of ANOVA revealed a significant change from pre-test to post - test situation irrespective of the groups. From the mean scores it is evident that in the pre-test irrespective of the groups, the mean value was 10.93 which increased to 14.34 in the post-test.

In other words, the treatment period had a positive effect on the performances of all the three groups irrespective of the context. The main objective in this period was to involve the students in a problem-solving task of text-generation. The result supports the logic of *learning by doing*. The more effort to make the learners to be involved in the process of learning the better would be the outcome.

The differential gains for different groups were observed. From the mean values, it is clear that group A (Indian students in India), B (Iranian students in India) and C (Iranian students in Iran) scored respectively as follows:

A (5.115), B (3.7308) and C (1.3846).

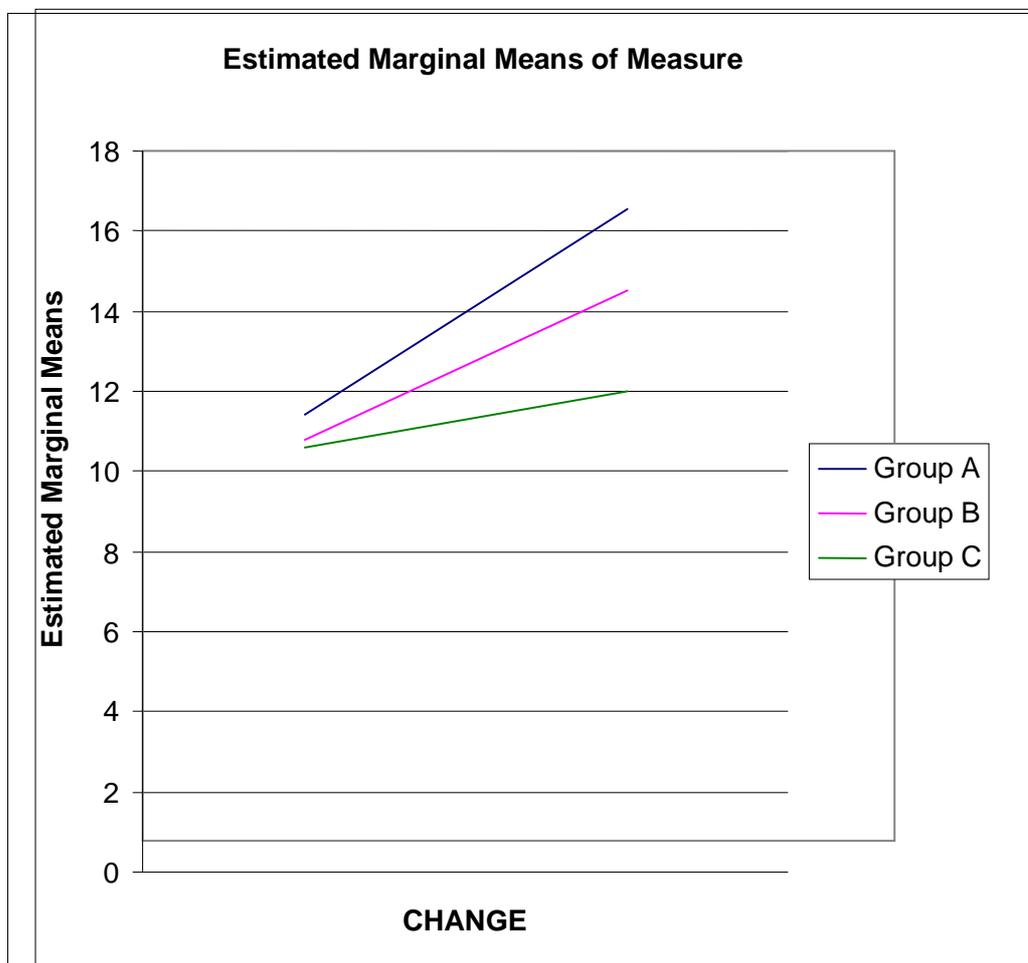
**Table: 4**

GROUPS	Pre -test		Post-test	Gain	
	Mean	S.D	Mean		Mean
Group A	11.4231	4.9572	16.5385	5.9278	5.115

Group B	10.7692	4.9583	14.5000	7.4471	3.7308
Group C	10.6154	5.0365	12.0000	4.7860	1.3846
Total	10.9359	4.9316	14.346167	6.3661	3.3718

General Linear Model

Figure:1



The students' performance regarding incidental vocabulary learning through the problem-solving task of text-generation in ESL context (India) is superior to their counterparts' performance in EFL context (Iran). This is proved by the fact that Iranian students who have stayed in India at least for two years, have been able to deal with the unknown vocabulary items more successfully than the Iranian students in Iran. Hence, it can be concluded that the context of learning is one of the most important factors which enhances the incidental way of vocabulary learning.

One of the main reasons for the difference between the performances of the students in EFL (Iran) and ESL (India) context regarding incidental vocabulary learning through the task of text-generation may refer to the linguality issue. People use different languages in their daily lives in India, but it is not the same in Iran. The Indian students who participated in this study were bilinguals who were fluent in Kannara and Hindi languages. English was the third language for them to learn. But, the Iranian students of this study were monolinguals who were only fluent in Persian Language. English language was the second language which they were supposed to learn.

As Keshavarz (2006) expressed, those who have learnt a second language during childhood would have a greater success in learning an additional language as adults. In fact, bilinguals have developed sensitivity to language as a system which helps them to perform better on the activities associated with formal language learning than monolinguals learning a foreign language for the first time. The results of a study by Hoffman (2001) indicated that bilingual students compared with the monolingual students are more powerful regarding reading comprehension of the texts.

Since rearranging of the sentences is affected by reading comprehension, it can be inferred that those students who are better in reading comprehension can rearrange the sentences better and sooner which allows them to have enough time to concentrate on the underlined vocabulary items.

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### Appendix 1

#### One:

At the age of sixty-six, Harland Sanders had to auction off everything he owned in order to pay his debts. Once the successful proprietor of a large restaurant, Sanders saw his business suffer from the construction of a new freeway that bypassed his establishment and rerouted the traffic that had formerly passed.

With an income of only \$105 a month in Social Security, he packed his car with a pressure cooker, some chickens, and sixty pounds of the seasoning that he had developed for frying chicken. He stopped at restaurants, where he cooked chicken for owners to sample. If they liked it, he offered to show them how to cook it. Then he sold them the seasoning and collected a royalty of four cents on each chicken they cooked. The rest is history. Eight years later, there were 638 Kentucky Fried Chicken franchises, and Colonel Sanders had sold his business.

#### Two:

There are several easily identifiable reasons for the growing number of single-parent households. First, the sociological phenomenon of single-parent households reflects changes in cultural attitudes toward divorce and also toward unmarried mothers. A substantial number of adults become single parents as a result of divorce. In addition, the number of children born to unmarried women who choose to keep their children and rear them by themselves has increased dramatically. Finally, there is a small percentage of single-parent families that have resulted from untimely death. Today, these varied family types are typical and, therefore, normal.

#### Three:

The railroad was not the first institution to impose regularity on society, or to draw attention to the importance of precise timekeeping. For as long as merchants have set out their wares at daybreak and communal festivities have been celebrated, people have been in rough agreement with their neighbors as to the time of day. The value of this tradition is today more apparent than ever. Were it not for public acceptance of a single yardstick of time, social life would be unbearably chaotic: the massive daily transfers of goods, services, and information would proceed in fits and starts; the very fabric of modern society would begin to unravel.

#### Four:

An argument can be made for learning a language in the country in which it is spoken. Only there can you truly hear the accent and idioms of natural speech. Being surrounded by the foreign language allows you to acquire nuances that elude the classroom. It is also beneficial to learn the language within the context of the culture so that you can learn the behaviors that accompany language. For example, learning how to order in a restaurant when you are right there with native speakers will also let you see how to behave in a restaurant in the foreign country. Finally, there are often opportunities that occur while you are in another country. Friendships can result in invitations to spend

time with native speakers in their homes, and possibilities can present themselves for work or study in the foreign country.

**Five:**

During the nineteenth century, women in the United States organized and participated in a large number of reform movements, including movements to reorganize the prison system, improve education, ban the sale of alcohol, grant rights to people who were denied them, and, most importantly, free slaves. Some women saw similarities in the social status of women and slaves. Women like Elizabeth Cady Stanton and Lucy Stone were not only feminists but also abolitionists who fought to do away with slavery. These brave people were social leaders who supported the rights of both women and blacks. They were fighting against a belief that voting should be tied to land ownership, and because land was owned by men, and in some case by their widows, only those who held the greatest stake in government, that is the male landowners, were considered worthy of the vote. Women did not conform to the requirements.

**Six:**

Although speech is generally accepted as the most advanced form of communication, there are many ways of communicating without using words. In every known culture, signals, signs, symbols, and gestures are commonly utilized as instruments of communication. There is a great deal of agreement among communication scientists as to what each of these methods is and how each differs from the others. For instance, the basic function of any signal is to impinge upon the environment in such a way that it attracts attention, as for example, the dots and dashes that can be applied in a telegraph circuit. Coded to refer to speech, the potential for communication through these dots and dashes—short and long intervals as the circuit is broken—is very great. Less adaptable to the codification of words, signs also contain agreed upon meaning; that is, they convey information in and of themselves. Two examples are the hexagonal red sign that conveys the meaning of *stop*, and the red and white swirled pole outside a shop that communicates the meaning of *barber*.

**Seven:**

Many people enjoy participating in sports for recreation because it offers an opportunity to be part of a group. As a participant, you can join a team and enjoy all the benefits of membership—shared experiences, travel to other sites to play, and a feeling of belonging. In training for a sport, an exercise routine usually contributes to good health. Probably even more important than group identity and good health are the life lessons that participation in a sport provides. Setting a goal and working towards it, collaborating with others, and putting a plan into action are all good lessons that can be learned on the playing field. How to win graciously is important not only in playing a game, but also in being successful in life.

**Eight:**

Stress converges on college students from many directions. First, there is the pressure to choose a major field of study and, ultimately, to select a career, choices that will affect the rest of their lives. These choices often coincide with another life choice—the selection of a marriage partner. In combination, the stress associated with such important decisions can be very high. Second, there is the daily stress from competition in the classroom, exacerbated by staying up too late studying for tests, preparing papers, and reading assignments. It is well documented that college students tend to gain weight and suffer from many stress-related illnesses.

**Nine:**

In my view, the best way to choose a marriage partner is to combine the old tradition of arranged marriage with the more modern concept of a love match. In my country, it is our custom to become engaged to a partner who has been selected by an intermediary. Usually, the families of the couple have made it known that they are interested in a union, and the intermediary makes the arrangements and negotiates the financial agreement that precedes the

marriage ceremony. I agree with this way to choose a marriage partner because the marriages that have been arranged in my culture, for the most part, have been successful. Traditionally, this type of arrangement has been good because the families that agree to the marriage have maintained a long friendship, they know the parties involved very well, and they have the maturity and wisdom to select compatible partners. In addition, the families have a vested interest in the success of the marriage and tend to be very supportive of the young people, both financially and emotionally.

**Ten:**

Insects, the most numerous creatures on our planet, are also the most adaptable. They require little food because they are small. They easily find shelter and protection in small crevices in trees and surface geological formations. Species of insects can evolve quickly because of their rapid reproduction cycle; they live in every climate, some making their homes in the frozen Arctic regions and many others choosing the humid, warm, and nutrient-rich rain forest environment. An active part of the natural food cycle, insects provide nutrition for animals and devour waste products of other life forms.

**Eleven:**

Because hunter-gatherers have fared poorly in comparison with their agricultural cousins, their numbers have dwindled, and they have been forced to live in the marginal wastelands. In higher latitudes, the shorter growing season has restricted the availability of plant life. Such conditions have caused a greater dependence on hunting and, along the coasts and waterways, on fishing. The abundance of vegetation in the lower latitudes of the tropics, on the other hand, has provided a greater opportunity for gathering a variety of plants. In short, the environmental differences have restricted the diet and have limited possibilities for the development of subsistence societies.

**Twelve:**

Jazz is an improvisational form of music that originated in the southern United States after the Civil War. Although its origins and history are somewhat vague, we know that it began as the musical expression of black people who had formerly been slaves, combining hymns, spirituals, and traditional work songs into something quite new. The style was a blend of the rhythms brought to America by the Africans who were imported as slave labor and the popular music of the era. The term jazz itself is of obscure and possible nonmusical origin, but it was first used to describe this particular kind of musical expression in about 1915.