

Toulmin's Layout of Argument and Its Application to Listening Practice

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Of the four language skills of listening, speaking, reading and writing, listening is an essential prerequisite to language competence and an indispensable element for communication. However, English teachers have yet to find a satisfying teaching method for improving their students' listening ability.

In addition to all the phonological, syntactical and semantic points that many investigators make, the writer believes that the training of reasoning will work for the improvement of listening. This paper aims to study Toulmin's model of argument and to contemplate the possibility of its application to the training of student's listening comprehension. The writer concludes that Toulmin's model will be applicable to the strategy of teaching listening.

1

The communication process includes four aspects: listening, speaking, reading and writing. These aspects must be closely interrelated and interdependent for the improvement of communication skills. Of the four, listening is a prerequisite to building language competence. Even during the silent period in language acquisition, a baby listens to the sounds of the outer world, including meaningless sounds, although he or she cannot speak at all. Japanese students, who begin to learn English as a foreign language after the critical period, need to consciously develop their listening skills if they are to improve their English ability.

For several decades, however, listening has been regarded as the least important and last to be learned, in teaching English to Japanese students. Most time has been spent in learning grammatical items and reading, not in listening. As a result of this imbalanced teaching, Japanese students have great difficulty in communicating. The Ministry of Education recognized the importance of teaching listening to junior and senior high school students and encourages English teachers to set up a listening skills course. Nevertheless, teachers have trouble finding appropriate and effective teaching methods for listening and good listening materials.

Listening is not a passive but an active action of decoding perceived sounds. When a listener does not try to understand what is being said, the sounds turn into meaningless noise, especially in the case of

a foreign language. Therefore, students should have listening practice consciously, using organized listening materials and an effective strategy.

Many efforts and investigations have been made by many scholars and English teachers to find the causes of the phonological, syntactical and semantic difficulties in students' listening and to establish a strategy for teaching listening. It has been found that listeners, consciously or unconsciously, try to reconstruct the structure of the spoken statements in listening in order to obtain the main ideas of the discourse. Thus, not only phonological, syntactical and semantic knowledge but also reasoning ability may promote improvement of student's listening skill. It is the contention of this paper that if students have listening practice based on the theory of argumentation, they can cultivate their ability to reason and improve their perception of the main concepts or ideas of what they hear by knowing what they should focus on while listening.

Toulmin's layout of argument is widely applauded not only by scholars of rhetoric but also by communication scholars as an aid to audience analysis and speech organization. Many textbooks based on his layout have been developed for students of speech and communication and composition classes. However, its application to listening practice has not been investigated. An argument is made to persuade an audience of a claim, which also means it is a process of listening from the viewpoint of the audience. As his layout is effective for audience analysis, it could also be used as a helpful aid for comprehending what the main ideas of a discourse are in listening. The aim of this paper is to study Toulmin's model of argument in order to see if it could be applied to the teaching strategy of listening.

2

Stephen E. Toulmin was born in London, England in 1922. Though he completed his Bachelor of Arts degree in mathematics and physics, he started his career as an educator and philosopher at Oxford University in 1949 after earning a Master of Arts in 1947 and a Doctorate of Philosophy in 1948, both in philosophy, from Cambridge. He is a professional philosopher but he has recognized the importance of rhetoric for his philosophical ideas. He published *The Uses of Argument* in 1958 in which he claims that traditional logic is incomplete as a tool of rationality. Because of his criticism to the study of formal logic, *The Uses of Argument* was poorly received by philosophers in England.

Wayne Brockriede and Douglas Ehninger, however, successfully introduced Toulmin's ideas about argumentation to American scholars of rhetoric and communication, when Toulmin went to the United States as a visiting professor. Though Toulmin did not originally intend it, *The Uses of Argument* has many implications for the field of rhetoric. Therefore, many American scholars of rhetoric and communication regard Toulmin as having influence in the field. Thus, his book has been applauded not only by philosophers but also by rhetoricians in the United States where the study of practical argumentation and rhetoric is kept alive.

Toulmin started his career as a rhetorician in the United States. He became a professor at Brandeis University in 1965, Michigan State University in 1969, the University of California at Santa Cruz in 1972, the University of Chicago in 1973, and Northwestern University in 1986. During his career in the United States, he has continuously published works, such as *Human Understanding: The Collective Use and Evolution of Concepts* (in 1973), *Wittgenstein's Vienna* coauthored with Alan Junik (in 1973), *The Abuse of Casuistry: A History of Modern Reasoning* coauthored with Albert R. Jonsen (in 1988), and *Cosmopolis: The Hidden Agenda of Modernity* (in 1990). Throughout his writings, he has argued his primary interest which concerns the rationality of human activity.

In *The Uses of Argument*, Toulmin contrasts substantial and analytic arguments:

An argument from D (data) to C (claim) will be called analytic if and only if the backing for

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the warrant authorising it includes, explicitly or implicitly, the information conveyed in the conclusion itself. Where this is so, the statement "D, B (backing), and also C" will, as a rule, be tautological... Where the backing for warrant does not contain the information conveyed in the conclusion, the statement "D, B, and also C" will never be a tautology, and the argument will be a substantial one.¹⁾

The conclusion in an analytic argument often is based on abstract and universal principles which are unchanging, regardless of the fields of arguments, and free of exceptions. However, in substantial arguments, arguers attempt to justify their conclusion in the context of a particular situation or a specific field. Therefore, a substantial argument is based on data or evidence to the conclusion and treats matters of probability depending on the context.

The concepts of argumental fields and probability are fundamental to Toulmin's ideas about argumentation. Toulmin argues that substantial arguments are contextualized because some portions of arguments vary from one field to another. He cogitates how the mode and the standard for assessment of arguments and the manner to qualify the arguments are related to argument fields. The placement of probability in his layout of argument makes a distinction from traditional logic. He adds in his layout the probability of exception by rebuttal which would rule out the conclusion and the degree of force and certainty by qualifiers, and he attempts to lead even an unqualified premise to a qualified conclusion by their addition.

Toulmin regards substantial arguments as a middle ground between absolutism and relativism. He criticizes these two extremes, although his criticism is directed to the former more than the latter. Toulmin argues that relativistic standards are too relative to establish standards of arguments and judgment, therefore, it would be difficult to make a distinction between good arguments and bad ones. His criticism of absolutism is that absolutism cannot be applied to solve practical problems because there would not be a universal principle which could cover every aspect of real life nor an absolute resolution regardless of the particular context. While the absolutists believe that the syllogism is the most appropriate method of reasoning with absolute knowledge, Toulmin criticizes that syllogistic reasoning includes internal complexity and ambiguities. "The apparently innocent forms used in syllogistic arguments turn out to have a hidden complexity."²⁾ He also points out that the conclusion of syllogism would be redundant because it must be known before a universal premise can be stated.

Toulmin's concept of argument is based on epicheirema described by Cicero in which some statement for supporting adds to either major or minor premises. He modifies and refines the syllogism by changing the terms for the elements in an argument and adding the concept of probability which distinguishes it from the traditional syllogism. In his layout of argument, the traditional term "Minor premise" turns to "Datum", "Major premise" changes to "Warrant", and "Conclusion" becomes "Claim"; and support for the major premise is called "Backing". In the traditional syllogistic reasoning, unqualified premises will result in an unqualified conclusion even though it has formal validity, but in Toulmin's model of arguments even unqualified premises can be used for certifying the claim by the support of warrant, backing, and rebuttal.

Brockriede and Ehninger give seven reasons for the superiority of the Toulmin model compared with traditional logic³⁾: 1) Toulmin's model provides for warrant-establishing arguments rather than warrant-using ones; 2) Toulmin's analysis stresses the inferential and relational rather than classification or compartmentalization; 3) Toulmin's additional three elements (backing, rebuttal, and qualifier) provide for establishment of a claim by giving limits or conditions, while traditional arguments try to produce universal propositions; 4) Toulmin emphasizes a concept of argument as dynamic, and by his functional terminology, we easily understand the role that part of an argument plays in the process; 5) Toulmin's model is based

on traditional reasoning such as enthymeme, but it portrays an argument in a way that examines each step critically; 6) Toulmin's model assigns each part of an argument a spatial position in relation to the others. Therefore, the weak points of an argument will be examined; 7) Toulmin makes material validity an integral part of his system by indicating the function of each part for establishment of a claim.

Joan Karback recognizes the heuristic value of Toulmin's model. She points out, "The model's heuristic value will become evident as we first construct an argument step by step and then later apply guiding questions to each step. These questions will help students to discover flaws in their arguments and at the same time may provide them with new ideas."⁴⁾ Toulmin's layout of argument is remarkable from the pedagogical point of view for its clarity, flexibility and dynamism.

3

Toulmin's model of argument comprises three fundamental elements that are essential to any argument: claim, data, and warrant. He regards an argument as a movement from accepted data through a warrant to a claim. Moreover, he establishes additional three components of an argument. They are qualifier, backing, and rebuttal, which are often present in an argument but need not necessarily be added to the first three elements.

The claim that is the basic purpose of an argument is a conclusion to be justified and established in the argument because it has a potentially controversial nature. Data are the evidence or specific facts we appeal to as a foundation for the claim. They provide reasons why the claim should be believed. Data differentiate an argument from an assertion. An argument must include data but an assertion need not. Data may be quotations from experts, historical or contemporary events, statistical figures, everyday facts, societal standards, or physical objects. An arguer needs data to qualify the argument.

Even after producing data, we need a different kind of statement in order to indicate that the claim based on data is an appropriate and legitimate one. This is the warrant. The warrant tells us why the data support the claim. The warrant authorizes the step from the data to the claim in an argument, playing the role of a bridge between the data and the claim. The warrant which is the general premise, supports the data which are the specific facts that lead to the claim. The warrant can be rules, principles, inference-licences, or whatever. Warrants are of different kinds and may give different strength to the claim. Some warrants may support the claim clearly, while the others are tentative and implicit. Therefore, we need to add more explicit references to the strength of claims.

The qualifier is important to understand Toulmin's model of argument. The qualifier has an explicit influence on the bearing of a warrant. Toulmin states that qualifiers, such as "possibly," "presumably," or "certainly," indicate "some explicit reference to the degree of force which our data confer on our claim in virtue of our warrant."⁵⁾ They have two characteristic and distinct aspects which are force and criteria. The force of an argument refers to the strength or power of the claim. It shows the strength of the step taken from the data to the warrant. The criteria for an argument refer to the standards used to justify the claim. The force and the criteria are contrasted. The force is field invariant but the criteria are field dependent in an argument. Toulmin says "the criteria may change while the force remains the same."⁶⁾

As the warrant is a general and hypothetical statement, it may not be so obvious that the additional support for a warrant will be required. Toulmin calls the support backing. A warrant is hypothetical but a backing can "be expressed in the form of categorical statements of fact."⁷⁾ The backing establishes the reliability and relevance of the warrant. The statements for the backing are categorized depending on the field of an argument. At this point, it is similar to the data appealed to in direct support of the conclusion. However, the backing is different from the data. The data must be produced but the backing

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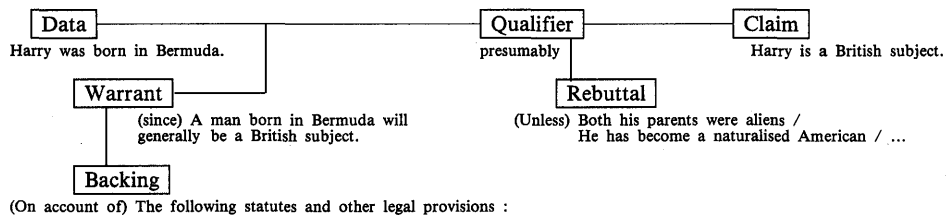
for the warrant need not be made explicit without a challenge.

The rebuttal is a condition or an exception, indicating a circumstance in which the general authority of the warrant would not have to be ruled out. An argument would not be conclusive if the authority of the warrant satisfies the exceptional conditions. Therefore, we need the appropriate provisos as a rebuttal.

To better understand Toulmin's taxonomy, let us look at an example adapted from one of Toulmin's. Minor premise is "Harry was born in Bermuda." Major premise is "A man born in Bermuda will be a British subject." Conclusion is "Therefore, Harry is a British subject." When such an argument is expressed in the form of a syllogism, it can be analyzed according to Toulmin's model. To justify the claim "Harry is a British subject," an arguer needs to appeal to the data in order to support the claim. The datum is "Harry was born in Bermuda." The movement from the data to the claim should be authorized by the warrant which is "A man born in Bermuda will generally be a British subject." Moreover, the additional support for the warrant is required in order to indicate why the warrant is appropriate and legitimate. It is the backing characterized by the word "on account of" or "because." In this argument the statutes or legal provisions will be used as the backing.

The movement from the data to the claim may be authorized by the warrant for the data and the backing for the warrant. However, Harry may not be a British subject because his parents may not be British citizens and Harry also has his parent's nationality. Therefore, the conditions of rebuttal are required as provisos in order to avoid the circumstances whereby the general authority of the warrant and the backing would be ruled out. In this case, the rebuttal is "Both his parents were aliens or he has since become a naturalized American." The qualifier "presumably" indicates the strength given by the warrant to the claim.

Thus, the layout of this argument can be depicted spatially as follows.⁸⁾



Toulmin clearly lays out the structure of an argument by giving understandable terminology and specific geographical positions to each element. His analysis of argumentation has been applauded by scholars of rhetoric. Simultaneously, those who teach communication show great interest in his layout, such as McCroskey and Cronkhite, because it is an adequate approach to the study of persuasion as cited before. In addition to the usefulness of Toulmin's model in producing speeches, we may be able to apply it to listening practice.

4

As language has redundancy, there is also redundancy in speeches. In listening, we need to focus on the main ideas and to select the important information from what we hear. If students are taught how to focus and how to select, listening comprehension will be easier for them. Toulmin's model may open one of the ways for improving their listening comprehension ability and one of the strategies for teaching listening. Now, the application of the model to listening practice will be examined here, with suggestions for listening materials.

In such listening materials, teaching about argumentation should be included as a preliminary stage.

The learner needs to comprehend the nature of arguments by differentiating an argument from an assertion. As most arguments deal with controversial issues, they may be confused with quarrels and disputes. However, an argument is not a quarrel nor a dispute, but a process of reasoning and advancing proof. It is justification for an arguer's claim depending on statements to support the claim, such as data, warrant, backing, or rebuttal. Unlike an argument, an assertion does not need any support for the claim because an assertion is a declaration of a claim and does not need to justify the claim. This is the difference between an argument and an assertion.

As a next step towards understanding argumentation, the internal structure of an argument should be clarified to the students, according to Toulmin's layout of argument. They will learn the terminology, the function of the components, the relation between them, and the whole structure of an argument. With such fundamental knowledge about argumentation, students can examine the internal structure of arguments given as samples for analysis. They can learn how to identify the claim, data, warrants, qualifiers, backing and rebuttal. After understanding the whole structure of an argument, students can organize an argument heuristically. They need to set up a claim, and prepare the data, the warrants for data, backing for the warrant, rebuttal and qualifier in order to justify their claim and establish the argument.

Knowledge about the structure of an argument will develop the ability to reason and help students learn what to expect in listening, so that they can expect a claim in a discourse or speech and can try to grasp the data and warrants for the claim. Thus, they can focus on the main ideas and the important information in what they listen to. After learning about the internal structure of an argument, the listening materials will be presented to the students. These listening materials can be developed in various ways. Here, two kinds of materials are offered as examples. The first is designed for students of different levels. The second is one for building up listening ability without separating the students by levels.

First, let us examine a speech delivered by David F. Lincowes about "Information and Learning" from *Information Age: Technology and Computers*.

If education can be successfully accomplished through computer programs linked to information bases and individual terminals, why not educate students at home? Already home computers are a major industry. There is no technical barrier to the fulfillment of a complete educational experience from a computer in one's own living room.

In the long term, the school building or campus and even the concept of "going to school" may increasingly become obsolete. Over a decade ago, some of the more imaginative educators were speaking of eliminating the "social addiction" to attending school. Proposals have been made for a deschooled world that would replace formal classes with networks of "learning exchanges." Instead of confining formal learning to the classroom, students would be taught wherever they might be, at home, the work place, or at the playground by giving them access to centralized information networks. People of any age who wanted to learn something would go to a reference library counselor. Just as the inventions of writing and the printing press necessitated a reformulation of pedagogic philosophy and technique, so the current advances will require the same careful re-examination of means, purpose, and policy in education.

Those in education expressing concerns about the onslaught of the computer into the halls of learning should recall that 2,400 years ago when writing was invented the educators of that day were alarmed for fear that writing would diminish the student's interest in learning. They argued students would refuse to memorize information anymore because the information would always be available to them on a written surface.⁹⁾

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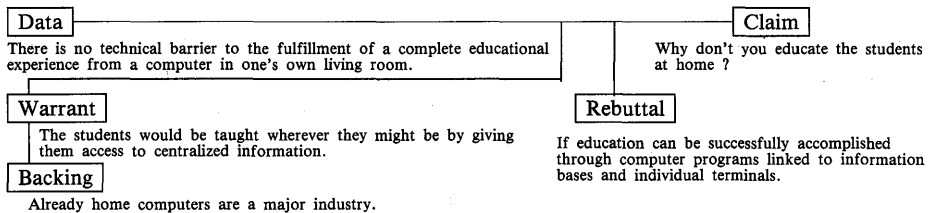
For elementary level students, the comprehension questions are given in advance of listening. These questions are given in written form and based on the first triad of elements in an argument, claim, data, warrant, including yes-no questions. Here are some sample questions:

1. What does the speaker propose?
2. Is there any technical barrier to the speaker's idea?
3. What facility is necessary for a student to get the information through his home computer?
4. What has to be developed for the realization of the speaker's proposal?

Through answering the questions, students can find what the claim is and what data and warrants support the claim.

For intermediate level students, the claim of the speech, "Why don't you educate the students at home?" should be given before listening. They can develop their own ideas about the claim. They may think of computer assisted instruction, or the merits and demerits of learning at home, for example. Thus, they may guess what data could support the claim. The knowledge of the claim or the theme of the speech triggers their expectancy about what they should focus on in listening. Thus prepared, the students listen to the speech and try to specify the data. Further, they are assigned to find the warrants for the data. Finally, they can recognize the whole structure of the argument.

Advanced level students can be assigned to listen and draw the layout of the argument by following the Toulmin model. They need to listen and to find out what the claim, the data and the warrant are. The datum is "There is no technical barrier to the fulfillment of a complete educational experience from a computer in one's own living room" and the warrant is "The students would be taught wherever they might be by giving them access to centralized information networks." They should also find the backing for the warrant, rebuttal and qualifier in the argument. And lastly, they should draw a layout of the elements of the speech as below.



Another way of designing materials would build students' understanding of an argument element by element. Students need not always be divided by level, though the students' levels should be taken into consideration. After understanding the general ideas about argumentation, each element of an argument will be introduced. When they learn the claim, for example, some short written speeches will be given to them. They have to identify the claims of each speech. After such practice, they will listen to some other speeches and specify the claims only by listening this time. Thus, at first the students practice by using written materials and then by using oral ones.

The data will be the second element in an argument to be learned. Students will be given some short speeches and their claims. Depending on the given claims, they need to identify the data for the claim in both written and oral speeches just as for the process of specifying the claim. Thus, the students, in turn, will learn how to select the important information as elements of arguments, such as the warrant, backing, and rebuttal if necessary. When students have learned every element of an argument, speeches will be given for analysis of the whole structure by listening according to the layout of argument.

The important thing in designing such materials is the consideration given to vocabulary. Vocabulary needs to be controlled in these listening materials as it is the predominant factor in listening compre-

hension and it easily becomes an obstacle for building listening ability.

5

Japanese students have not been positively taught about argumentation at school. For one thing, Japanese people often hesitate to argue with someone else because they are afraid that an argument may mean the break of a friendship. However, their hesitation is based on a misunderstanding about argumentation. An argument does not mean blaming nor quarreling, but reasoning. In reality, we often unconsciously have an argument when we want to persuade someone else and when we want to explain something to someone else. An argument can be one of the important aspects in communicating. Therefore, when the students listen to the statements, their knowledge of argumentation, especially the structure of arguments, will undoubtedly help them greatly to comprehend what they hear.

Toulmin's model of argument is pedagogical and beneficial for both students and teachers for its simplicity, clarity and heuristic quality. His model can be taught easily and quickly. Therefore, a number of researchers have argued the effectiveness of teaching Toulmin's model of argument in composition and speech classes and developed texts for composition and speech based on his model. This paper suggests its application to listening practice by presenting samples of listening materials. Knowledge of Toulmin's layout of argument will undoubtedly improve efficiency in the selection of important information in listening and promote students' critical thinking and ability of reasoning. Such cultivation of students' reasoning ability will be strategic in improving listening comprehension ability.

The applicability of Toulmin's model to listening practice must be recognized through this paper. However, in order to obtain a crucial conclusion of its effective application to listening practice, the model needs to be applied not only to explicit arguments, but also to implicit statements or dialogues by actually designing the listening materials based on the model. Moreover, the effects of the teaching method for listening should be investigated through sufficient experimental data.

Toulmin's model can open the way to new strategies for listening practice. It may trigger the development of appropriate listening materials for Japanese students. More important is that the students can cultivate their abilities of reasoning and critical thinking which will lead them to effective learning not only in listening, but also speaking, reading, and writing.

Notes

- 1) Toulmin, Stephen, "The Uses of Argument" *The Phetorical Tradition: Readings from Classical Times to the Present*, ed. by Bissel, Patricia and Bruce Herzberg, Bedford Books of St. Martin's Press, Boston, p.1121(1990)
- 2) Ibid, p.1117.
- 3) Brockriede, Wayne and Douglas Ehninger, "Toulmin on Argument: An Interpretation and Application" *Quarterly Journal of Speech* 46, pp. 46-47(1960)
- 4) Karback, Joan, "Using Toulmin's Model of Argumentation," *Journal of Teaching Writing* 6, p. 85(1987)
- 5) *The Uses of Argument*, p.1113.
- 6) Ibid, p.1110.
- 7) Ibid, p.1115.
- 8) Ibid, p.1115.
- 9) Linowes, David F, "The Information Age: Technology and Computers" in *Contemporary American Speeches*, eds. by Johnnessen, Richard L. et al, Kendal/Hunt Publishing Co, Iowa, p.42(1972)