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The Impact of Information Processing on the Rating of Speeches

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This research is a product of the graduate program in Speech Communication at Eastern Illinois University. Find out more about the program.

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Date
The Impact of Information Processing on the Rating of Speeches

(by)

Ryan Wyckoff

Thesis

Submitted in partial fulfillment of the requirements for the degree of

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In the Graduate School, Eastern Illinois University
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I hereby recommend that this thesis be accepted as fulfilling this part of the graduate degree cited above

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The Impact of Information Processing on the Rating of Speeches

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Abstract

This paper takes a look at how information competency, information processing, and receiver apprehension, affect rating behavior when rating speeches. The paper is broken down into two studies. The first study looks at information competency, which is measured by the Information Competency Assessment Instrument, and how it affects rating behavior. The second study looks at information processing, which is broken down into three scales based on the Inventory of Learning Processes then each is analyzed based on rating behavior, and receiver apprehension which is measured using the Receiver Apprehension Test and how these two concepts affect rating behavior. Students were given surveys to measure information competency, information processing, and receiver apprehension and also asked to evaluate speeches. A negative correlation between receiver apprehension and information processing was found along with support for the idea that information competency and information processing have an affect on rating behavior.
Acknowledgments

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The Impact of Information Processing on the Rating of Speeches

In the field of Communication, speeches play an important role. The evaluation of these speeches is important to study. When evaluating a speech one must make judgments that can easily be subjective rather than objective. Past research has shown that certain rating errors (to be discussed below) can occur during the evaluation process. It is important to first look at the theory of speech evaluation and rating errors before specifically discussing the errors.

Concerned with this problem Bock & Bock (1984) developed a theory of speech evaluation and rating errors, which has at its base the central idea that, “the rater’s ability to utilize cognitive, affective, and psychomotor cues in the speech evaluation setting will cause rating errors to occur,” (p. 337). They present three constructs to explain the theory. These are the act of speech evaluation (SE), the receiver component (RC), and the demand characteristics of the situation (DC).

Bock & Saine (1975) studied the (SE) or speech evaluation construct. They found that (SE) may be affected by any one of the components of the speech communication process. This is represented as \( SE = f(S, M, C, R, F, RI, E, I, + e) \) where SE = speech evaluation, \( f = \) a function of, \( S = \) speaker, \( M = \) message, \( C = \) channel, \( R = \) rater (receiver), \( F = \) feedback, \( RI = \) rating instrument, \( E = \) the environment, \( I = \) interference, and \( e = \) measurement error. Their findings suggest that rating errors occur in the mind of the receiver, and also that the third construct demands characteristics has a heavy affect on rating errors.

Bock & Munro (1979) investigated the second construct which states that rating error is most affected by the rater component of the process. This can be represented by \( RC = f(S, M, C, \)
aR, F, RI, E, I + e), where RC = the rater component and aR = a weighting of the rater component relative to the other components.

The third construct as studied by Bock & Bock (1977) states that rating error is affected by the demand characteristics of the situation. This means that since the rater feels much is required of him or her while rating, even the smallest cue about what is expected causes errors in the ratings. This is therefore expressed as DC = f(SC, Exp, + e), where DC = demand characteristics, SC = situational cues, and Exp = expectations. Bock & Bock (1984) explain that a situational cue could be the nervousness of the speaker, or an expectation as the previous performance of a speaker (if he or she did well or not in the past).

These three constructs then lead to the overall theory being summed up by stating RE = f(SE, RC, DC, + e), where RE = rating error, SE = speech evaluation, RC = rater component, and DC = demand characteristics. This theory is used to study the errors that occur when evaluating speeches.

The three errors that have been quantified by Guilford (1954) include the leniency error, halo error, and the trait error. Guilford describes the leniency error as the tendency for an individual rater being too easy (positive leniency error) or too hard (negative leniency error) in his or her ratings no matter who the speaker is. He then defines the halo error as the tendency for the rater to be too easy (positive halo error) or too hard (negative halo error) on the evaluation of a specific speaker. Finally he develops the trait error as the tendency for a rater to be too easy (positive trait error) or too hard (negative trait error) on specific traits from the rating scale.

In research on the leniency error Bock & Bock (1977) found that the sex of the experimenter is an important factor. An opposite sex effect was found to be true when evaluating speeches. Bock (1970) also found that easy-to-persuade raters tend to be more lenient
than hard-to-persuade raters. He suggests that in order to control such errors in the future, knowledge of the persuasibility of raters is important to have. Bock & Bock (1984) also find the positional stress, “the anxiety a person feels prior to giving a speech,” (p. 338) has an affect on leniency errors in that when in the pre-positional stress condition, raters will be positively lenient.

Halo error has been found in past research. If a speaker is better liked and better known he or she is likely to be judged as a better speaker (Henrikson 1949). Barker (1969) offers support of a “halo” error existing. In his study he finds that instructors and students both show tendencies to rate a speaker higher if they like him or her as a person or scholar.

Bock & Saine (1975) find that when studying trait errors the attitude of the rater towards the speaker can modify the rater’s view of the message. When the viewpoint is one that the rater sees as favorable, the rater will differentially rate speakers on credibility or similarity. Bock, Powell, Kitchens, & Flavin (1976) found that there is a significant difference in the amount of trait errors on the trait of bodily action and general effectiveness based on the means in which raters see the speech (face-to-face, TV, or video-tape).

This study is going to take a look at what, if any, affect information processing has on the evaluation or rating process. As found in Bostrom (1990).

In its current state, the receiver apprehension literature in not able to isolate or explain the causes of the construct. For example, there is evidence that apprehensive individuals under stress overestimate the performance of speakers (Bock & Bock 1984). It is unclear, however, if leniency errors are the result of increased anxiety for high receiver apprehension raters, if errors result from an interaction between receiver apprehension and situational source anxiety (cf. stage fright), or if the ratings are attributable to
deficiencies in information processing abilities. Of course, this problem in not unique to receiver apprehension. Research on source-based anxiety is unable to isolate or explain the series of events producing communication apprehension. (p. 115.)

In Daly, McCroskey, Ayres, Hopf, & Ayres (Eds.) (1997) receiver apprehension is defined by Wheeless as, “the fear of misinterpreting, inadequately processing and/or not being able to adjust psychologically to messages sent by others,” (p. 152). He goes on to explain that, “the fear of receiving messages is associated with self-referents related to information processing,” (p. 152). Wheeless has developed the RRAT (Revised Receiver Apprehension Test) which is used in a similar fashion as the PRCA to measure receiver apprehension as opposed to communication apprehension. He found enough evidence to support the idea that there is a difference between the two and that receiver apprehension can have an affect on the information processed in a given situation. He pointed out that just as there may be apprehension in sending messages (CA) there also is apprehension when receiving messages (RA).

Wheeless, Preiss, & Gale (1997) explain that most receiver apprehension is tied to information processing. They argue that, “This anxiety appears to be an operant response to reception difficulties grounded in cognitive processing deficiencies,” (p. 166). Schumacher & Wheeless (1997) find that state-receiver apprehension causes a decrease in information seeking in dyadic encounters. They also state that at the high end of apprehension is where the most evidence of this is found. So the higher the apprehension the less information the receiver seeks. They point out that this finding is opposite of that found by state communication apprehension where uncertainty led to increases in information seeking. Ayres, Wilcox, & Ayres (1995) found that as the processing demand increases so does receiver apprehension, so that the more that is
demanded of receivers to process the more the apprehension increases. They find several factors such as the desire to get a good grade, the difficulty of the material, and the knowledge that one will be tested all can increase receiver apprehension. They summarize this by stating that, “RA can profitably be conceived as fear produced by high processing demand, evaluation, and motivation,” (p. 234).

Receiver apprehension has been found to be a significant negative factor in the learning process (Chesebro & McCroskey 2001). They say that, “students who are apprehensive when receiving classroom messages are likely to have difficulty listening to and processing information effectively,” (p. 66). They also go on to suggest that clarity and immediacy in teaching can reduce receiver apprehension. Clark (1989) adds to this, “it seems relatively clear that being more willing to communicate and less apprehensive about both speaking and listening is an index of better listening comprehension,” (p. 247). Winiecki & Ayres (1999) in a study of CA and RA in organizations found that high levels of both affect the amount of a workers salary. From this they offer that, “perhaps apprehension interferes with the processing/ reception of information in ways that reduce one’s chances of being noticed or in ways that degrade one’s job performance...,” (p. 439).

So with an understanding of the importance of receiver apprehension a better understanding of information processing is needed. Schmeck, Ribich, & Ramanaiah (1977) developed the Inventory of Learning Processes (ILP) to assess information processes in students. The ILP is a survey of true-false statements that assesses students’ ability to process, retain, and retrieve information. Schmeck in Dillon & Schmeck (1983) describes the ILP in greater detail. The ILP has been broken down into four areas or categories.
The first category is termed Deep Processing. Deep Processing measures how students “critically evaluate, conceptually organize, and compare and contrast the information they study,” Schemck (1983 p. 245).

Elaborative Processing is the second category which measures, “the extent to which students translate new information into their own terminology, generate concrete examples from their own experience, apply new information to their own lives, and use visual imagery to encode new ideas,” Schmeck (1983 p. 248).

The third scale that has been used by Schmeck and colleagues is termed Fact Retention. It has been shown that those who score high on this scale, “carefully process and thus store, details and specific pieces of new information regardless of what other information-processing strategies they might employ,” Schmeck (1983 p. 248).

Finally, Methodical Study is the final scale that Schmeck develops. This scale deals more with how students study and how hard they work in classes. It doesn’t focus as much on the actual processing of information and is therefore not going to be measured for the current study.

Schmeck (1983) goes on to argue that students who score high on Deep Processing, Elaborative Processing, and Fact Retention were, “processing deeply and encoding elaboratively while still retaining specific details,” (p. 252). He points out that students who score higher on these three scales also tend to have higher GPA and ACT scores as well. Gadzella & Baloglu (2003) agree with this finding that high achievers (based on the grades that they receive in a educational psychology class) score significantly higher on deep processing and fact retention than do low achievers.
Based on the past research there is support for the idea that information processing and receiver apprehension have a connection. There is however no connection made between information processing or receiver apprehension and rating behavior. There is a question as to what affect information competency, information processing, and receiver apprehension all have on rating behavior. These concepts have not been measured specifically looking at rating behavior. There has not been a connection made as to the type of effect that they have on the rater. There have been several studies done on the rating errors but nothing to look at or measure the affect that information competency and information processing have on the rating behavior of raters. There has been much research done on receiver apprehension and it has been connected with information processing, but nothing beyond this connection has been explained.

Based on the original question raised by Bostrom (1990) about information processing and rating behavior hypothesis one was developed.

H1. The higher the level of information competency will result in lower ratings or lower evaluations of speeches. (Study One)

Based on the research above by (Wheeless, Preiss, & Gale 1997, Wheeless 1997, Cheesbro & McCroskey 2001) which shows that receiver apprehension has a connection with information processing hypothesis two was developed.

H2. The higher the level of receiver apprehension will result in lower levels of information processing. (Study Two)

Based on Bostrom (1990) and then Schmeck (1983) and all of his research dealing with information processing and learning styles hypothesis three was developed.

H3. The higher the level of information processing will result in lower ratings or lower evaluations of speeches. (Study Two)
Study One

Study one was conducted during the fall semester of 2003. It was a semester long project that encouraged further study the following semester.

Method

Participants. Eighty-six undergraduate students at a medium sized Midwestern University enrolled in the introduction to speech communication course participated in the study. Students volunteered and were given participation credit in their classes for taking part in the study.

Apparatus. The Information Competency Assessment Instrument (ICAI) was used (Marshall, 2002). The self-report survey measures information competency levels of the participants. It contains 40 statements where participants are asked to use a seven-point Likert-scale in order to measure their feelings. The instrument was shown to have a reliability Alpha = .92 (n= 106), and also validity (rho = .29, p <.01). For more detailed information see Marshall (2002). A video tape of three informative speeches taken from previous introduction to public speaking classes was used. The rating scale the participants used was the Bock Rating Scale. This scale has been developed over time to measure two distinct concepts (content and delivery) based on six traits that are strategically placed on the scale, organization, language, material, delivery, analysis, and voice (Bock 1970, Bock 1972, Bock & Bock 1977, Bock & Bock 1984). Each of these articles can provide more specific and detailed explanation of the rating scale. The survey and rating scale can be found in the appendixes.

Procedure. Participants were given the ICAI one week prior to viewing the tape of the speeches. They were asked to complete the entire survey answering all questions. After a week had passed the participants watched the video containing the three speeches, which all ranged
from six and half to seven and half minutes, and evaluated them using the Bock Rating Scale. Students were asked to make sure they had a rating in each of the categories on the rating scale. Waiting a week was so that the students didn’t connect the survey with the evaluations. The surveys and the evaluations were then scored.

Results

Support for hypothesis one was found. After looking at the evaluations of all three speeches and comparing them with the information competency scores little support seemed to exist. Then a subcategory of information competency which I call information analysis or clarity was found to emerge, by looking specifically at questions 3, 8, 23, 30, 32, and 35 of the ICAI. Those who scored 30 or above were placed in the high information analysis/clarity group ($M = 20.76$, $SD = 4.04$) while those who scored 26 or less were placed in the low clarity group ($M = 22.13$, $SD = 2.61$). Those who scored low in information analysis rated all three speakers collectively, significantly higher on the trait of organization ($t = 1.88$ (85), $p = .031$). This gives support to hypothesis one.

Discussion

This study offered enough support for hypothesis one, to encourage further study. By looking at information competency it was revealed that information processing could have an affect on the rating of speeches, particularly for the traits material, analysis, and organization. Study one showed that there is a connection between information processing and content based traits. These three traits seem to be the three that are closely related to processing of information. Information processing may be found to have a more significant affect on rating behavior in general and specifically on the three traits previously mentioned.
Limitations

There were limitations with the study that need to be addressed. First of all the study used the ICAI which measures information competency and not information processing. This gave support to the idea that information processing maybe specifically related to the rating process. So for the second study an instrument to measure information processing was used. Secondly the speeches that were viewed for evaluation all came from introductory (first time) speakers. The overall level of the speeches was considered to be of a beginning level. So for the second study speeches from an advanced class were used. In the end there seems to be a connection or relationship between information processing and rating behaviors among raters. Thirdly the sample size was small.

Study Two

Study two was encouraged based on the support found in study one. Study two was a semester long project completed during the spring of 2004. Study two also tries to address some of the limitations of study one.

Method

Participants. Sixty students enrolled in the introductory public speaking course at a medium sized Midwestern University participated in the study. The students were given participation credit for taking part in the study. Only fifty-four of the students were used in the study as six had to be dismissed for incomplete information.

Apparatus. The students were given the Wheeless Receiver Apprehension Test (RAT) to measure receiver apprehension. This is a self-report survey adapted from the PRCA in order to specifically measure receiver apprehension. The reliability of the RAT in split-half situation was reported at .91 (Wheeless, 1975). The students were also given the Inventory of Learning
Processes (ILP), a self-report survey to assess information processing in students (Schmeck, Ribich & Ramanaiah, 1977). The ILP is a survey of true and false statements that measures students' abilities in processing, retaining, and retrieving information. Schmeck (1983) goes into great detail about how the ILP was developed. The ILP was broken down into four scales. The lower the score on these scales the higher the level of information processing. For the purpose of this study the first three were used: Deep Processing, Fact Retention, and Elaborative Processing. Deep Processing measures how students "critically evaluate, conceptually organize, and compare and contrast the information they study," Schmeck (1983 p. 245). Those who score high on Fact Retention, "carefully process and thus store, details and specific pieces of new information regardless of what other information-processing strategies they might employ," Schmeck (1983 p. 248). Elaborative Processing measures, "the extent to which students translate new information into their own terminology, generate concrete examples from their own experience, apply new information to their own lives, and use visual imagery to encode new ideas," Schmeck (1983 p. 248). Students were then asked to view three informative speeches (via video tape) and evaluate them. The rating scale used was modified from the Bock Rating Scale. The modifications to the scale were that the order in which the traits were presented was altered.

**Procedure.** The students were first given the RAT and then the ILP. They were asked to be sure and completely fill out both answering all of the questions. The same day the students were then asked to evaluate the three speeches. This was all done on the same day to try and get a true reading of the receiver apprehension at the time of the evaluation. The speeches were shown one at a time and the students were given a couple of minutes in between each speech to finalize their evaluations. They were once again asked to be complete and be sure to have a score (rating) in each category.
Results

There was support for hypothesis two. Receiver apprehension was negatively correlated with information processing. A definite negative relationship was found between Deep Processing and Receiver Apprehension (n = 54, \( r = .312, p < .025 \)). A definite negative relationship was found between Fact Retention and Receiver Apprehension (n = 54, \( r = .284, p < .025 \)). A similar relationship was found between the cumulative Information Processing score and Receiver Apprehension (n = 54, \( r = .286, p < .025 \)). With an n = 50 an r of .273 is required for significance.

Hypothesis three received mixed results. High information processors on the Deep Processing (those that scored 18-26) scale rated speaker one significantly higher (\( M = 7.88, SD = 1.23 \)) than did low information processors (those that scored 28-36) (\( M = 6.91, SD = 1.42 \)) on the trait of voice (\( t = 2.59 \) (52), \( p = .007 \)).

The same was true for the analysis trait of speaker two. High information processors (\( M = 8.55, SD = 1.04 \)) and Low information processors (\( M = 8.05, SD = 0.98 \)) with a (\( t = 1.69 \) (52), \( p = .049 \)). These results suggest that the lower the level of information processing the lower the evaluation given.

However high information processors on the Fact Retention scale (those that scored 7-9) rated speaker two significantly lower (\( M = 45.5, SD = 4.37 \)) than did low information processors (those that scored 11-14) (\( M = 48.65, SD = 4.54 \)) on the overall rating of the speech (\( t = -1.82 \) (52), \( p = .037 \)).

The same was true of speaker three. High information processors (\( M = 48.62, SD = 5.23 \)) compared with low information processors (\( M = 52.91, SD = 3.68 \)) for a (\( t = -2.23 \) (52), \( p = .027 \)).
Additional support came in the analysis rating of speaker two. High information processors ($M = 7.91$, $SD = 1.09$) compared with low information processors ($M = 8.41$, $SD = 1.01$) where ($t = -1.76$, $df = 52$, $p = .046$) showing that the higher the level of information processing the lower the evaluation.

More support came in the rating of analysis for speaker three. High information processors ($M = 7.75$, $SD = 1.16$) where as low information processors ($M = 8.52$, $SD = 0.75$) for a ($t = -2.45$, $df = 52$, $p = .017$) meaning that once again the higher the level of information processing the more negative the rating given.

Discussion

The results indicate a negative relationship between Receiver Apprehension and Information Processing, which supports hypothesis two. This was found to be true in three of four instances. In both the Deep Processing and Fact Retention scores as well as the cumulative information processing score a negative correlation was found. There was no correlation between receiver apprehension and the Elaborative Processing score. The negative relationship is expected as the more apprehensive someone is the less likely he or she is to process information in the particular setting or it could be viewed as the less information someone can process in a given situation the more likely he or she is to be apprehensive. This is important in classroom settings for instructors to understand that if they have a student that is highly apprehensive as a receiver he or she may have problems in the classroom processing and understanding daily activities and assignments. This finding adds support to and agrees with past research (Wheeless, Preiss, & Gale, 1997; Ayres, Wilcox, & Ayres, 1995; Chesebro & McCroskey, 2001).
Hypothesis three demonstrated mixed results. First the support for hypothesis three is shown by those who scored high on the Fact Retention scale of information processing. These raters scored speakers lower (or rated them tougher) than those who scored low on Fact Retention as was predicted. This is true of speakers two and three on both the overall score and on the trait of analysis. This makes even more sense if we look back to what Schmeck (1983) says about Fact Retention. It has been shown that those who score high on this scale, “carefully process and thus store, details and specific pieces of new information regardless of what other information-processing strategies they might employ,” (p. 48). This is exactly what they would be doing while rating a speech. This instance looks as if the higher the information processing ability then the more negative the evaluations are.

The results that seem to disprove hypothesis three are shown by those who scored high on Deep Processing. These raters scored speaker one higher (or rated speaker one easier) on both voice and analysis than did raters who scored lower on the scale; this is in disagreement with hypothesis three. This suggests that those who can process more information will rate or evaluate speakers easier than those who process less information.

One explanation for this might be that the speakers used in this instance were all from an advanced public speaking course. It could be argued that the speeches were therefore better than what the raters from an introductory class are used to seeing and therefore those who deeply process information recognized this and scored the speakers higher. Another explanation for the findings could be that the sample size was just too small to get a true reading.

A third explanation for this could be from the rating scale itself. In study two a modified version of the Bock rating scale was used because that is what the students are used to seeing for their own speech evaluations. The original Bock scale goes as follows: Organization, Language,
Material, Delivery, Analysis, and Voice and is done so purposely to avoid logical and proximity errors. Logical error as defined by Guilford (1954), “is due to the fact that judges are likely to give similar ratings for traits that seem logically related in the minds of the raters,” p. 279.

Guilford goes on to explain proximity error as, occurring because the similar traits are closely organized on the rating scale. The modified scale used in the study: Organization, Language, Material, Analysis, Delivery, and Vocal Delivery. This causes immediate concerns because material and analysis as well as delivery and vocal delivery are right next to each other on the scale. This could easily result in both logical and proximity error in the raters.

The mixed results here on hypothesis three suggest that there is some kind of relationship between information processing and rating behavior. It could be that the different types of processing affect rating behavior differently. It encourages further study into this area.

Limitations

Study two took into consideration limitations from study one. This however led to limitations in study two. The first being that in study one only introductory level speeches were shown to be evaluated and in study two only advanced level speeches were shown to be evaluated. The sample size in both studies was low and needs to be increased in the future studies.

The rating scale used in study two was shown above to have potential problems with proximity and logical rating errors. There could also be a better way to measure information processing. The ILP used in this instance measures different categories or types of information processing and does not really give a bottom line overall score or level.

Another possible limitation is that the raters in this instance are in an introductory public speaking class and are not all that experienced in giving speeches let alone rating them. A little
more or complete training could be done to reduce rating errors. There is the limitation as well that the raters are viewing speeches from a video tape. This will limit some of their ability to actually judge or evaluate the speeches.

Further Study

In future studies the first recommendation would be to use speeches of both an introductory and advanced level. This may be important to see if there is a difference because of the level of the speeches. The second thing would be to try and limit or minimize as many of the rating errors as is possible. The rating scale for example needs to be organized in a fashion to limit proximity and logical errors. Raters could also be given more training as to how to actually go about rating a speech. Guilford (1954) offers support for this by saying that the best way to eliminate errors is to train raters. It may be a good idea to have them rate some sample speeches earlier on in the semester and prepare them to be more adequate raters.

There is enough support here to encourage future study in the area of rating behavior in comparison with both information processing and receiver apprehension. It might be interesting to take a look at sex and see if there is any kind of relationship based on that. It might also be worth looking at students who are upper-division communication majors and have specifically studied the topic to see if there is any difference.

Conclusion

The goal behind this study was to find the affects that information competency, information processing, and receiver apprehension have on rating behavior. There is a certain correlation between receiver apprehension and information processing that is evident. There is significant support to show that information competency and information processing do have an affect on rating behavior. However information processing has so many levels and definitions it
is hard to pinpoint exactly what the specific affect is. It may be necessary to come up with a new definition of information processing in order to fully comprehend and understand the role that it plays in rating behavior. However we can conclude that information processing, information competency, and receiver apprehension all do play a role when it comes time to evaluate a speech.
References


T., & Ayres, D. M. (Eds.), *Avoiding communication: Shyness, reticence, and communication apprehension* (pp. 151-187). New Jersey: Hampton Press Inc.

Appendix A

Information Competency Survey

DIRECTIONS: This instrument is composed of 40 statements concerning feelings about finding and disseminating research information. Please indicate the degree to which each statement applies to you by circling the number that best fits your feelings on the statement from whether you (1) strongly disagree to (7) strongly agree. Using the following scale, please record your first impression.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel confident determining what topic I need to search.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Sometimes I feel lost because the topic I want to research is not very clear to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I can take a complex topic and break it down into more useful, simpler items.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>“Confused” is probably the best term to describe me when starting a project.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I am sometimes unsure of how much information I need for the assignment.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I know the difference between “primary” and “secondary” sources.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I get confused because of the many different formats (print, electronic, etc.) when searching for information.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I am certain that I can use the information I find.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>I know how to broaden or narrow a search using Boolean operators (AND, NOT and OR) and truncation.</td>
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<tr>
<td>It is easy to interpret the results of a search.</td>
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<tr>
<td>I’m not sure how to use an index (e.g. catalog, database, etc.).</td>
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<td>I can confidently get my hands on the material (by printing, e-mailing, interlibrary loan, etc.) I need.</td>
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<td>I understand the organization of materials in libraries.</td>
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<tr>
<td>Government documents are confusing to me.</td>
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<tr>
<td>Web search engines are unreliable.</td>
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<td>I know the difference between an abstract and an article.</td>
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<td>Sometimes I cannot figure out for whom the information is intended.</td>
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<td>I can use many different types of media (print, video, photography, etc.) confidently as information for my topic.</td>
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<td>1 2 3 4 5 6 7</td>
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<td>19. At times, the producer of the information is not clear.</td>
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<td>20. I can confidently spot inaccuracy, errors, etc. in the information from mass media.</td>
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<td>21. The information I find is so confusing that I don't know if I can use it.</td>
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<td>22. I am not confident that the information I get is accurate.</td>
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<td>23. The information I use is complete and reliable.</td>
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<td>24. I am sure that the information I have answers my question or addresses my topic.</td>
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<td>25. A lot of the information I find is irrelevant or unnecessary.</td>
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<td>26. After collecting my information, it is easy to sort by content that is similar.</td>
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<td>27. Sometimes my question changes depending on what information I find.</td>
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<td>28. If my topical outline doesn't make sense, I get discouraged.</td>
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<td>29. I am not sure which communication medium (transparencies, slides, video, etc.) is appropriate for the delivery of this information.</td>
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<td>30. I know my audience and that the information I present meets their needs.</td>
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<td>31. I sometimes have doubts as to why I am communicating this information.</td>
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<td>32. I am confident that my information is clearly and confidently presented.</td>
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<td>33. I'm not sure how to record or cite all my sources.</td>
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<td>34. I have questions about the privacy of the information I receive.</td>
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<td>35. I can tell when information is biased.</td>
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<td>36. I know when material is confidential, should not be used.</td>
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<td>37. While preparing a project, I am certain how it will be received by others.</td>
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<td>38. Feedback is demoralizing to me.</td>
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<td>39. I am able to learn what processes would be helpful for finding information in the future.</td>
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<tr>
<td>40. After the presentation of the information, I'm not sure how it was received.</td>
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</tbody>
</table>

Reverse coding before summing. (2, 4, 5, 7, 11, 14, 15, 17, 19, 21, 22, 25, 28, 29, 31, 33, 34, 38, & 40)
Appendix B

Receiver Apprehension Test (RAT)

The following statements apply to how various people feel about receiving communication. Indicate if these statements apply to how you feel by noting whether you (5) strongly agree, (4) agree, (3) are undecided, (2) disagree, or (1) strongly disagree.

1. I feel comfortable when listening to others on the phone.
2. It is often difficult for me to concentrate on what others are saying.
3. When listening to members of the opposite sex I find it easy to concentrate on what is being said.
4. I have no fear of being a listener as a member of an audience.
5. I feel relaxed when listening to new ideas.
6. I would rather not have to listen to other people at all.
7. I am generally overexcited and rattled when others are speaking to me.
8. I often feel uncomfortable when listening to others.
9. My thoughts become confused and jumbled when reading important information.
10. I often have difficulty concentrating on what others are saying.
11. Receiving new information makes me feel restless.
12. Watching television makes me nervous.
13. When on a date I find myself tense and self-conscious when listening to my date.
14. I enjoy being a good listener.
15. I generally find it easy to concentrate on what is being said.
16. I seek out the opportunity to listen to new ideas.
17. I have difficulty concentrating on instructions others give me.
18. It is hard to listen or concentrate on what other people are saying unless I know them well.

19. I feel tense when listening as a member of a social gathering.

20. Television programs that attempt to change my mind about something make me nervous.
Appendix C

Inventory of Learning Processes (ILP)

Answer each of these questions either True or False as they pertain to you.

1. I find it difficult to handle questions requiring comparison of different concepts.
2. I have trouble making inferences.
3. I have trouble organizing the information I remember.
4. Even when I know that I have carefully learned the material, I have trouble remembering it for an exam.
5. I find it difficult to handle questions requiring critical evaluation.
6. I do well on essay tests.
7. I often have difficulty finding the right words for expressing my ideas.
8. I have difficulty learning how to study for a course.
9. I have difficulty planning work when confronted with a complex task.
10. I get good grades on term papers.
11. I often memorize material I do not understand.
12. I have trouble seeing the difference between apparently similar ideas.
13. I can usually state the underlying message of films and readings.
15. Most of my instructors lecture too fast.
16. I can usually formulate a good guess even when I do not know the answer.
17. I ignore conflicts between the information obtained from different sources.
18. I read critically.
19. I do well on examinations requiring factual information.
20. I am very good at learning formulas, names, and dates.

21. I do well on tests requiring definitions.

22. I do well on completion items.

23. I have trouble remembering definitions.

24. My memory is actually pretty poor.

25. For exams, I memorize the material as given in the text or class notes.

26. I look for reasons behind the facts.

27. New concepts usually make me think of similar concepts.

28. While studying, I attempt to find answers to questions I have in mind.

29. I am usually able to design procedures for solving problems.

30. After reading a unit of material, I sit and think about it.

31. I learn new words or ideas by visualizing a situation in which they could occur.

32. When learning a unit of material, I usually summarize it in my own words.

33. I learn new concepts by expressing them in my own words.

34. I daydream about things I have studied.

35. When I study something I devise a system for later recalling it.

36. I learn new words and ideas by associating them with words and ideas I already know.

37. I learn new ideas by relating them to similar ideas.

38. I try to convert facts into “rules of thumb.”

39. While learning new concepts practical applications often come to mind.