

# Teaching Language and Communication with Story Logic

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## Introduction

If we<sup>1</sup> ask the average language teacher or learner if they intentionally approach language learning and teaching while using story-based materials or the structure or logic of story, many of them might say "No." And when language teachers and learners inadvertently shut out story from learning, we could say that they are making a kind of story mistake. We make a story mistake when we think story works only for entertainment, when we think story structure does not work best for communicating facts, and when we think story logic does not mesh with every aspect of language education.

And why should we think it a mistake not to use story as an essential framework in the teaching of language and communication? As we will see below, humans generally experience messages in stories as more understandable, interesting, enjoyable, and memorable. Story works as a most powerful way to put information into human brains. And story stands as a cultural universal that taps into both the emotional and logical sides of human brains. In a word, story packs a powerful impact.

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<sup>1</sup> The use of "we" follows "classic writing style" (Thomas & Turner, 2011 and Pinker, 2014), where the pronoun "we" refers to writers and readers in conversation and where writers direct the readers' gaze to something real in the world. Depending on context, "we" also refers to actions that the writers undertook in doing this research.

Of course, when we consider the story mistake, this begs the question about actual data showing just how much people do and do not use story for language education. This looks like a good question for future research. However, we can see the waves and ripples of the story mistake in other ways. Graduate programs in applied linguistics and TESOL tend not to offer any courses in teaching with story style and story logic. Publishers have published very few books that promote the idea of story-based language teaching. And top-level journals have published a paucity of papers dealing with the power of story for language education.

Thus, in this paper, we attempt to provide foundational thinking for overcoming the story mistake. We will look at a brief literature review, which shows the powerful science that supports the use of story for all kinds of teaching and learning. See Poulshock, Ikeo, & Miyata, (2022) for additional review of the literature on this topic. The review below includes a summary of our own previous experiment on language teaching with story logic. Moreover, in this study we will present the results of a new experiment which attempts to replicate and expand upon our previous results. And lastly, we will look at a sample story-based curriculum and consider how learners perceived it.

## **Literature Review**

In our previous article (Poulshock et al., 2022), we provided a brief history and summary of how educators have used story and the logic of story for language teaching. We also set out a minimalist definition of story based on (Gottschall, 2012), which defines story as *character + conflict + attempted extrication*. We laid down a basic theory of story logical language teaching, stating that *we acquire language by understanding and recounting messages infused with story-logic*. Our theory stands as a repurposing of Krashen's (1982) comprehensible input hypothesis, which says that humans acquire languages by understanding messages. And by adding the "recounting of messages," and not just input, we also incorporate Swain's (1993) output hypothesis in our theory. Moving this research forward, in this article, we

review a different set of factors related to how story creates immersion, flow, simulation, and interest.

### **Story and Immersion**

Fascinating research about story comes from the work of neuro-economist Paul Zak. Zak and his colleagues (Zak, 2015, 2020) measured responses to a story about a young boy who suffered from a serious brain tumor. Researchers measured attention, emotional responses, respiration, skin conductance, heart rate, blood chemistry, and brain activity. Through this research, Zak and his team coined the term "immersion." The concept denotes a "state of attention" and "emotional resonance" in response to a stimulus or during an experience that also results in an "observable behavior." That is, the story may cause people to increase their attention on the story itself, and the story may cause them to feel emotional empathy with story characters, and these responses may cause people behave in a way that we can observe. For example, they might cry, laugh, or be moved to take some sort of action.

Zak's research shows that the narrative arc which we find in stories works as a powerful way to set immersion in motion and motivate visible actions and behaviors. That is, a potent narrative arc unlocks chemical chains that cause immersion. As Zak says, "We found that the narrative with the dramatic arc caused an increase in cortisol and oxytocin" (Zak, 2015, p. 4). Of course, we intuitively know that stories work this way. But Zak's research builds a strong scientific foundation for the power of story, and his research should cajole us to look for more ways to deepen immersion with the logic of story when we teach and learn languages and when we teach the principles of communication.

### **Story and Flow**

Zak's concept of immersion overlaps with the notion of flow (Csikszentmihalyi, 1990). In a state of flow, people can fully concentrate and enjoy an activity so much so that they lose track of time and forget about their problems.

In a state of flow, people reach an intense and optimal kind of experience. Flow expresses itself as a kind of intrinsic motivation where the activity itself works as its own reward. According to Massimini, Csikszentmihalyi, and Fave (1988, p. 76) "the most frequently mentioned flow activities were reading, sports and hobbies, and studying." And regarding reading, Mcquillan and Conde state that "fiction was significantly more likely to produce flow than non-fiction texts" (1996, p. 109). Thus, reading stands as a most common flow activity, and when people read fictional stories, they enter flow more than with other kinds of reading. Ideally, therefore, if we can use the structure and logic of story to create flow states in learners, and if story-infused content promotes flow more than content without story infusion, then we would have an even stronger basis for teaching communication and languages with story logic.

### **Story and Simulation**

In addition to immersion and flow, story opens a world of simulation. Mar and Oatley (2008) claim that stories paint mental models or simulations of the social world. Specifically, they claim that narrative fiction works as simulation in two ways. First, when we see or read a story, we feel emotions that match up with the events in a story. For example, CNN reported (Griggs, 2015) that when watching the movie *Jaws*, audience members screamed and rose in their seats when they saw a severed head or a shark attack. The story painted a simulation that caused people to act and feel as if they were in the story.

Secondly, narrative fiction or story sketches a simulation of how social life works. Stories model the real world. Stories help us predict how people will act, and stories help us see why people act in certain ways. Stories help us vicariously experience human power dynamics, manners, and communication. Stories help us indirectly experience moral dilemmas. By proxy, stories help us feel, understand, and resolve social conflicts. In a word, stories model real life and simulate how to live real life. Since story structure paints vivid simulations in our minds, it therefore gives us another sound reason for using the logic of story as a teaching tool.

### **In the Interest of Story**

As a basic premise, we considered previously that educators and learners may make a story mistake, thinking story only really works for entertainment and not for education. However, Klassen and Klassen (2014) make a strong case that story structure increases the interest level for learning scientific information. They suggest (pp. 142-143) weaving scientific facts into a tapestry of narrative elements that include:

1. Characters -- who create the main actions of the story
2. Actions -- where characters do things -- that are historically accurate
3. Situations -- where characters respond to events
4. Consequences -- where situations and events affect each other
5. History -- where events take place in the past and are retold
6. Scene Setting -- where the story starts
7. Problem -- that emerges, and which requires a scientific answer
8. Crisis -- that requires the main character to act
9. Decision -- where the main character makes a critical choice
10. Conclusion -- where the problem is solved (or not)

Klassen and Klassen claim that as we weave scientific facts into these narrative elements, learners will find science more interesting. If we can increase student interest, that might suffice, but the authors elaborate, saying: "Enhancing student interest in school science is synonymous with increasing their intellectual engagement" (2014, p. 137). Thus, the authors claim that a stream of other benefits flows out of interest. Interest promotes engagement, motivation, and most importantly, deeper comprehension and learning.

If story-based learning improves science education, can it also work to improve language education? This stands as the most general and central question of this paper. But as story endures as the language teacher's oldest technique (Rinvolutri, n.d.), what is so novel about the idea of language teaching with story? The answer dwells within the phrase "story-logical language teaching." In this paper, we don't just advocate storytelling, but rather that we weave story logic into every aspect of teaching. Thus, how can we knit story logic into the teaching grammar,

vocabulary, pronunciation, listening, reading, expository writing, speaking, academic writing, presentation skills, and content-based courses in liberal arts and sciences? In this way, the goal of story logical language teaching works to infuse all aspects of language education with the spice of story. And as the above literature review shows, story produces immersion, flow, simulation of the real world, and it creates interest that promotes deeper learning. If story works with such powerful effect, then language teaching with story logic stands on solid ground.

### **Methods – First Experiment and Its Replication Study**

In our previous study (Poulshock et al., 2022), we presented two separate groups (n=30) with two separate texts. The texts presented the same facts about the dog Chaser who learned 1022 words and his trainer and owner Dr. John Pilley (Pilley & Reid, 2011; Pilley & Hizmann, 2013). The story version of the text weaved the facts with story logic, where the characters have goals, motives, and objects of desire, and where they face conflicts, difficulties, and risks as they attempt to reach their goals. For the non-story version, the text does not employ these elements of story; it works more like an encyclopedia entry. After reading the texts, groups responded to a questionnaire, which presented comprehension questions and items related to difficulty, enjoyment, and the likability of characters. In sum, subjects who read the story-logical version of the text liked the characters more than subjects who read the non-story logical version. Subjects in both groups did not register difference in difficulty between the two texts. But subjects who read the story-logical version enjoyed the text more than the subjects who read the non-story logical version. And subjects who read the story-logical version comprehended and recalled the text better than the subjects who read the non-story logical version.

To replicate this research, we repeated the same experiment with the same texts, but we added new variables to the questionnaire. Besides likability, difficulty, enjoyment and comprehension, the new variables attempted to measure empathy, author intention, flow, and relevance for readers. The subjects were undergraduate students of linguistics at a Japanese university who volunteered to participate in

these experiments. Subjects in the story group (n=23) and non-story group (n=22) read a paper version of their separate versions of the texts. The story-logical version of the text was profiled at an elementary, basic level or CEFR A2+. The non-story logical version of the text was profiled at an elementary, basic level or CEFR A2+. (See the Appendices 1-3 for these texts and the questionnaire.)

For the replication experiment, the researcher and an assistant observed the subjects to ensure that they did not access mobile devices or PC's during the experiment. When finished, experimenters gave subjects a QR code to access online, separate but duplicate copies of the questionnaire (see Appendix 4). Before taking the questionnaire, subjects returned their paper copy of the text about Chaser to the experimenters, so that they could not check it while taking the questionnaire. Subjects also checked a box, acknowledging that their identity was kept anonymous.

After reading the texts, subjects responded to the online questionnaire which contained two experiments. Experiment 1 investigated readers' attitudes towards reading. Experiment 2 investigated readers' recall and retention in reading. For Experiment 1, we measured participants' attitudes toward reading story-logical and non-story logical versions of a text. Experiment 1 asked seven types of questions with a 7-point Likert scale. The first type of questions (n=6) measured the likability of the characters in the story. The second type of questions (n=4) measured readers' empathy for the characters in the story. The third type of questions (n=4) measured how readers perceived author's intent in the story. The fourth type of questions (n=2) measured flow or the readers' attention to the story. The fifth type of questions (n=4) measured the readers' perceived value of the story. The sixth type of questions (n=3) asked about the enjoyment of the story. The seventh type of questions (n=3) measured the difficulty of the story. For Experiment 2, comprehension questions (n=15) assessed readers' recall and retention comparing two conditions, story-logical and non-story logical versions in reading.

After a reading session of 30 minutes, participants in both groups did Experiment 1 with the 26 questions that measured likability, empathy, intent, attention/flow, value, difficulty, and enjoyment. Then participants did Experiment 2

with the 15 multiple choice comprehension questions. All questions were presented online using Google Forms.

## Results

Experiment 1 investigated readers' attitudes toward engaging in story-logical and non-story logical versions of a text. To address the question, scores on the questionnaire items were submitted to independent sample t-tests, and the mean scores on the questionnaire items were compared for statistical significance. For character likability, the 23 participants reading the story-logical version ( $M = 4.3$ ,  $SD = 0.66$ ) compared to the 22 participants reading the non-story logical version ( $M = 3.8$ ,  $SD = 0.35$ ) showed significantly better scores with a large effect size,  $t(43) = 2.97$ ,  $p = .005$ ,  $d = 0.88$ . For character empathy, the 23 participants reading the story-logical version ( $M = 4.1$ ,  $SD = 0.33$ ) compared to the 22 participants reading the non-story logical version ( $M = 3.8$ ,  $SD = 0.33$ ) showed significantly better scores with a large effect size,  $t(43) = 2.87$ ,  $p = .006$ ,  $d = 0.83$ . For story enjoyment, the participants reading the story logical version ( $M = 5.5$ ,  $SD = 0.39$ ) compared to the participants reading the non-story logical version ( $M = 4.2$ ,  $SD = 1.43$ ) outperformed significantly,  $t(43) = 3.94$ ,  $p < .001$ , associated with a large effect size,  $d = 1.03$ .

On the other hand, there was no statistically significant difference for the perceived author's intent,  $t(43) = 1.33$ ,  $p = .19$ , between the participants reading the story logical version ( $M = 5.6$ ,  $SD = 0.92$ ) and the participants reading the non-story logical version ( $M = 5.2$ ,  $SD = 1.04$ ). There was no significant difference for the readers' attention or feeling of flow for the story,  $t(43) = 2.13$ ,  $p = .39$ , between the participants reading the story logical version ( $M = 4.9$ ,  $SD = 0.52$ ) and the participants reading the non-story logical version ( $M = 4.6$ ,  $SD = 0.46$ ). There was no significant difference for the readers' perceived value of the story,  $t(43) = 1.86$ ,  $p = .06$ , between the participants reading the story logical version ( $M = 4.1$ ,  $SD = 0.38$ ) and the participants reading the non-story logical version ( $M = 3.8$ ,  $SD = 0.53$ ). There was also no significant difference for story difficulty,  $t(43) = 1.32$ ,  $p = .19$ , between the participants reading the story logical version ( $M = 6.1$ ,  $SD = 0.77$ ) and

the participants reading the non-story logical version ( $M = 5.7, SD = 1.26$ ).

Experiment 2 investigated readers' recall and retention in reading. The 15 comprehension questions compared comprehension in reading the story-logical and non-story logical versions of a text. The participants were asked to recall information from the texts without looking back at the text that they had just read. The results indicated that the participants reading the story logical version ( $M = 11.87, SD = 1.06$ ) outperformed significantly,  $t(43) = 4.55, p < .001$  associated with a large effect size,  $d = 1.36$ , the participants reading the non-story logical version ( $M = 9.55, SD = 2.2$ ).

Though we saw no significant results for difficulty, perceived value, flow and attention, author's intent, we did see significant results for likability, empathy, enjoyment, comprehension, and recall. For likability, subjects significantly liked characters more in the story-logical version. For character empathy, subjects felt significantly more empathy for characters in the story-logical version. For story enjoyment, subjects who read the story version of the text enjoyed their text more than subjects who read a non-story version of the text. Subjects also more successfully comprehended and recalled the story version of the text than the non-story version. These results strongly replicate our previous study, with one additional finding, that participants felt more empathy for the characters in the story logical version of the text than the non-story version.

### **Methods – A Simple Case Study**

In addition to the above experiments, a small group of students worked through a story-based seminar. The seminar works with three basic goals: (1) Students learn how to give factual and academic presentations using "story style communication" where they structure presentations around the basic story logic of problem, solution, and result. (2) Students learn about how to use the principles of story to plan a meaningful life or "story lifestyle." (3) Students learn the practice of extensive, story reading to improve their verbal and communicative powers.

The seminar consisted of 6 students who read and discussed 18 short

English articles dealing with "story style communication" and "story lifestyle." The articles ranged from 400 to about 800 words in length. See Appendix 4 for a list of the titles of the 18 short articles. Five of the 6 students responded to a simple questionnaire about the articles they read and discussed. As Table 1 shows, students found story-logical content to be generally interesting, easy to understand, helpful, and useful. They also felt that they could make their presentations more memorable and interesting by using story style communication. At least initially, therefore, these results show that students find a story logical curriculum to be interesting and useful.

**Table 1 -- Story Seminar Questionnaire**

<b>Negative Side</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>Positive Side</b>
The stories about story-style communication are interesting.								
Very Boring							<b>2</b>	<b>3</b> Very Interesting
The stories about story-based life-style design are interesting.								
Very Boring							<b>1</b>	<b>4</b> Very Interesting
The stories about story-style communication are easy to understand.								
Very Difficult						<b>2</b>	<b>2</b>	<b>1</b> Very Easy
The stories about story-based life-style design are easy to understand.								
Very Difficult							<b>3</b>	<b>2</b> Very Easy
The stories about story-based life-style design are USEFUL. I can USE them to design my life.								
Not Useful at All						<b>1</b>		<b>4</b> Very Useful
Story-style communication can help me improve my presentation skills.								
Not helpful at all							<b>2</b>	<b>3</b> Very helpful.
Story-style communication can help make my presentations more memorable.								
Not memorable at all							<b>2</b>	<b>3</b> Very memorable
Story-style communication can help make my presentations more interesting.								
Not Interesting at All							<b>2</b>	<b>3</b> Very Interesting.

## **Discussion**

As we can see from the above results, it seems that educators can influence how learners experience factual content by embedding it in the structure of story. If we can present factual content to learners using story style so that learners like characters more, feel more empathy for characters, and so that learners enjoy that content more, then this alone might justify language teaching with story-logic. However, language learners also seem to comprehend and recall information better when they interact with it in story form. If so, then we hold a very strong case for infusing more language teaching with the logic of story.

Of course, we see limitations and problems with a study like this. For one, this study does not look at longitudinal factors. Ideally, we need to look at the impact of story-logical content over the course of a semester or year. We want to know why we didn't see significant differences with regards to perceived value, flow and attention, and author's intent. And it seems odd that subjects did not perceive any differences with regards to difficulty between the story and non-story versions of our text. Nevertheless, we feel that the findings in this study are generalizable because they fit with a large body of research (Haven, 2007, 2014, Zak, 2015), albeit mostly not done with language learners, that supports the powerful effect of presenting content embedded in story structure. Therefore, we can begin to positively commend the idea that story-logical language teaching should be an essential factor when planning, creating, and implementing content-based language learning programs.

## **Conclusion**

In the end, we reviewed vital factors that highlight the power and value of story for language education. Zak's (2020) concept of immersion expresses how learners experience a "state of attention" and "emotional resonance" in response to a story-infused stimulus. Immersion also results in observable behavior; that is, it motivates some sort of behavior, such as crying or laughter. The concept of immersion reminds us of the motivational stimulus that story-infused content can

provide, and immersion also could serve as a fruitful topic for future research regarding teaching languages with story logic.

We also looked at Csikszentmihalyi's concept of flow (1990) where people experience optimal concentration and enjoyment of activities. We saw how reading of fiction texts stood out as a most common type of flow activity (Massimini, Csikszentmihalyi, & Fave, 1988; Mcquillan & Conde, 1996). Our experiment showed subjects enjoyed the story version of our text more than the non-story version, and this might correlate with flow. However, we could not find a significant correlation for the concept of flow with the story version of our text. Though the story version of our text may not have produced flow, it is possible that we needed a better instrument to measure flow. Therefore, flow may stand as a fruitful topic for future research, as we look at story-infused factual content for language learners.

In our literature review, we also looked at the concepts of simulation and interest. Though the concept of "interest" seems very much like the concept of "enjoyment," they may be different. In our experiment, we measured enjoyment, but we opted not to measure interest because the concepts seemed to be too similar. However, in future studies we might also be able to tease out the different nuances between interest and enjoyment, which might provide further insight and support for story-logical language teaching. And regarding simulation, it seems worth asking the following questions for future research. Can we create non-fiction stories infused with story-logic so that learners act and feel as if they are inside the story? If so, how could we measure such a response?

These last questions may prove too difficult to answer. However, the good news from this research project seems to strongly justify the use of story logic in language teaching, because with story-infused factual content we saw that learners seem to like characters more, feel more empathy for characters, and enjoy that content more. Moreover, these learners also comprehended and recalled content better when it was infused with story. Thus, this study replicates our previous study, and it meshes well with the already robust body of research regarding the power of story for all kinds of communication and learning. And this gives us hope for both

future research and teaching that story logical teaching may work best, not only for copying ideas and content into human brains, but also for acquiring the powers of linguistic communication.

## **Appendix 1: John and the Smartest Dog (00)**

**(Note: This is the non-story version. But subjects only see (00) in the Title.**

- 1. Read the story.**
- 2. When finished, give this paper back to the teacher.**
- 3. Take the survey.**

Dogs are popular pets. A lot of people like dogs because they are smart. They learn tricks such as "sit," "wait," and "shake hands." There are many kinds of smart dogs: Labradors, Golden Retrievers, and Poodles. But Border collies are the smartest. Border Collies work with sheep. To do this work, they must listen to their master's words. They must follow directions. So, Border Collies are special. They are the smartest dogs for understanding language.

One of the smartest Border collies was Rico. Rico learned about 200 words. And people read about Rico in a famous science magazine. There is another smart Border collie named Chaser. Chaser learned 1,022 English words. She learned more words than any other dog. And she changed how we think about dogs.

Chaser belonged to Dr. John Pilley. Dr. Pilley was a scientist. And he studied animals at university. When he worked at university, he had a dog called Yasha. Dr. Pilley worked with Yasha for 16 years. Then Yasha died. Yasha's death made Dr. Pilley sad. So, he decided not to have any more dogs.

Dr. Pilley retired from his job. Then he read about Rico. Rico had learned 200 words. Dr. Pilley liked the idea of teaching words to a dog. Soon after that, Dr. Pilley's wife gave him a new dog. Dr. Pilley named the dog Chaser. And he started to train Chaser. He worked daily with Chaser. They worked for four to five hours — every day. Dr. Pilley taught Chaser the names of many objects. Every day, Chaser listened to Dr. Pilley. Dr. Pilley taught Chaser words. And they got good results. Chaser learned more than 1,000 words.

Dr. Pilley wanted people to know about Chaser. As a scientist, he especially wanted other scientists to know about Chaser's intelligence. But two science journals rejected his work. Then Dr. Pilley managed to publish his results in a famous science magazine. It was not an easy task because scientists don't easily believe things. To publish his results, Dr. Pilley had to follow strict scientific rules. He carefully tested Chaser.

First, the best science magazine called Science rejected his research. So, Dr. Pilley did more experiments. He tried to publish in another magazine. But this magazine also rejected his work.

Dr. Pilley tried a third time. Finally, his results were published. Scientists came to understand. They saw that Dr. Pilley's experiments were done correctly. And Chaser's memory was remarkable.

After that, Chaser became popular in the news. She appeared on TV shows. Dr. Pilley also wrote a book about Chaser. And the book sold over a million copies. Many people heard Chaser's story.

Dr. Pilley died at the age of 89. One year later, Chaser died at the age of 15. Dr. Pilley is remembered for his research with Chaser. And Chaser is known as the smartest dog in history.

## Appendix 2: John and the Smartest Dog (11)

(Note: This is the story version. But subjects only see (11) in the Title.

1. Read the story.
2. When finished, give this paper back to the teacher.
3. Take the survey.

Maybe John Pilley loved dogs too much. John studied animals at university. And for 16 years, he worked with his dog Yasha. But now John held Yasha in his arms, and he cried, "My dear Yasha, don't die!" John did everything to save his dog. But Yasha was too old and sick. And when Yasha died, John felt his heart break.

So, John promised himself, "I will never love a dog again."

Time passed, and John retired from work. Every day, he sat in a chair with a sad face. John's wife saw his sadness. So, one day she came to him and said, "John, I have a gift for you." John looked down and saw a smiling face — a beautiful black and white dog.

And John loved his new dog and named her "Chaser."

Chaser is a Border Collie. People enjoy dogs, like Labradors, Golden Retrievers, and Poodles. But Border Collies are different. Border Collies work with sheep. And to do this work, they must listen to their master's words and follow directions. So, Border Collies stand out as the smartest dogs for understanding language.

John had read about a Border Collie named Rico. Rico had learned about 200 words. John thought to himself, "Maybe Chaser can learn more words than Rico!" John liked the challenge. So, every day he spent 5 long hours with Chaser. He worked and played with Chaser — teaching her the names of many things.

And in time, Chaser learned 1022 English words!

John believed his dog was special. And he wanted other scientists to notice. But scientists don't believe so easily. So, John studied a lot. And he wrote a paper about Chaser's ability to learn words. Then he made a risky choice. He sent the paper to Science Magazine — the most powerful science magazine in the world.

But Science Magazine did not accept John's work.

John felt shocked. He took a big chance with Science Magazine. Now he felt stupid. He thought, "It's not fair! Science Magazine published the story about Rico. Why not Chaser?" But John didn't give up. One year later, he sent his research to another magazine. Then he waited. When the answer came, John opened it and read these words: "We are sorry, but..."

Rejected again, John felt his heart stop.

Science magazines push writers to follow hard rules. John carefully followed all the rules, so the result felt unfair. But John kept working. Three years later, he tried again. The reply came, and finally, success! John published his research in a famous science magazine. After that, Chaser rose up as a TV and Internet star! John wrote a popular book about Chaser. And many people heard Chaser's amazing story.

Time passed. At age 89, John became sick. And with Chaser by his side, John died. And a year later, at age 15, Chaser also died. Yet the story of John and Chaser lives on! They changed how we think about dog intelligence. And today, Chaser stands tall — as the smartest dog in history.

### Appendix 3: Link to Online Questionnaire

#### Survey (11)

1. Open the survey with the QR code or link.
2. Answer the questions as best you can.
3. Click the submit button when finished.

*Your answers are private. This survey does not affect your grade.*



**Click the link below to see online questionnaire.**

**[www.bit.ly/dogsurvey11](http://www.bit.ly/dogsurvey11)**

**Appendix 4: List of Articles for the Story Seminar**

Story Style Communication	Story Lifestyle
Read "Communicate in Story Style." (2) Define story style communication, and (3) explain how it improves messaging, writing, and presenting. Note: story style and story-logical communication are the same thing.	Read and summarize "Life as Story." (2) Aim to read a million words. State why this is a worthy goal; (3) summarize the idea of a story-lifestyle and how to use story-logical communication for giving presentations.
Read "Presentation with Story-Logic." (2) Summarize the 5 basic elements of story-logical communication, and (3) explain why they are important.	Read "Story is Essential." (2) Recount and describe the 3 elements of story. (3) Summarize the 4 roles people play in stories and recount their relevance for story-lifestyle.
Read "Do What you Can't Do." (2) Summarize and analyze they key points. (3) List 3-5 possible topics for your final presentation.	Read "Your Cross-Cultural Purpose." (2) Summarize Viktor Frankl's 3-point formula for creating meaning, and (3) Role-play practical scenarios for using Frankl's 3 points.
Read "Three Levels of Story Problems." (2) Summarize in your own words each kind of problem. (3) Think of examples from real stories and presentations.	Read "Be the Hero of Your Story." (2) Summarize the 3 key points of the story. (3) Discuss common "critical incidents" and possible story goals as "objects of desire."
Read "The Five Steps of Story Style." (2) Summarize and analyze they key points. (3) Narrow topics for your presentations.	Read "The Hero's Desire." (2) Summarize the key takeaways. (3) Simulate a scenario for a common hero and answer the three questions presented in the story.
Read "A Story's Climactic Scene." (2) Work on introductions for presentations. (3) Work on structuring presentations with story style.	Read "Start Your Story at the End." (2) Summarize the key points and takeaways. (3) Answer questions from the story and share your answers with the class.
Read "A Story's Call to Action." (2) Describe the "call to action" (3) Give real life examples of a call to action in reports and presentations.	Read "Reverse Engineer Your life." (2) Summarize the key points and takeaways. (3) Write down ideas to apply the story in real life.
Read "Plots in Story Style Communication" (2) Summarize the key points and takeaways. (3) List up the sub-plots in your presentation drafts.	Read "Find Meaning in Life's Story." (2) Summarize the key points and takeaways. (3) Answer the questions that the story asks.
Read "The Moral of Story Style" (2) Summarize the key points and takeaways. (3) Discuss ways to end presentations with the main theme or main point.	Read "Life Story Time Machine." (2) Summarize key points and takeaways. (3) Preview the 10-, 5-, and 1-year vision work sheets. See Hero on a Mission Worksheets.

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