

A Multimodal Alternative to Traditional Literacy Pedagogy through the Graphic Novel *American Born Chinese*

Alan H. Shelton

Missouri State University

ahs1987@live.missouristate.edu

Abstract

This study attempts to demonstrate that graphic novels can be utilized as valuable educational materials for second language learners. It situates graphic novels within the argument surrounding the use of literature in ESL classrooms and suggests that graphic novels can offer a multimodal alternative to traditional literacy pedagogy. With this intention, the graphic novel *American Born Chinese* was examined using vocabulary analysis tools familiar to corpus linguistics. The analysis both determined the vocabulary size necessary for adequate comprehension, as well as identified mid to low-frequency vocabulary words occurring within the graphic novel using frequency lists compiled from the British National Corpus (BNC). As a result, glossaries of the mid to low-frequency vocabulary words identified in the analysis were inserted in the margins of the graphic novel on the page where they occurred to help facilitate pleasurable reading of the graphic novel for the participant of this study

この論文はグラフィックノベルを価値ある教育ツールとして英語学習者と教師のために役立たせようとする試みとして見ることができる。グラフィックノベルが伝統的なりテラシー教育のマルチモードな代替案の一つとして英語学習者に提供できるという提案をし、英語の授業における文学の使用についての議論範囲にその位置付けを試みている。この論文ではグラフィックノベルである「American Born Chinese (アメリカ生まれの中国人)」をコーパス言語学に精通した語彙分析ツールを用いて適切な理解に必要な語彙のサイズを測定し、ブリティッシュ・ナショナル・コーパス(BNC)の頻度リストを使って低頻度の語彙を明らかにした。グラフィックノベルをより理解しやすく楽しいものにするために、これらの低頻度の語彙を対象とし、テキスト内で定義した。

The use of literature in the English learner's classroom has a history of being critically questioned. For example, a contributor to the journal of *English for Specific Purposes*, Horowitz (1990) criticized those who, he believed, touted literature as "the answer" (p. 167) to the ESL profession. He thought literature was wrongly assumed as a panacea for teaching ESL students because of the desirable humanistic effects literature was assumed to provide, such as growth in emotional awareness, development of empathy, and critical reasoning.

His aim was to connect the literature debate with that of discourse communities by presenting and then refuting three major claims of the advocates for the use of literature in ESL. He asserted (1) teachers should initiate students into academic culture rather than promote the humanist agenda (education versus training), (2) teachers should not value literature over non-fiction for its supposed interpretative richness (metaphor and imagery not exclusive to literature), (3) teachers should not assume that writing about literature is transferable to other discourse conventions (Horowitz, 1990).

Horowitz (1990) believed the skills and knowledge gained from studying literature are not necessarily transferable to other courses because argumentation is field-specific. That is, discourse communities or the disciplines that students will enter each have their own rhetoric and conventions, which the composition instructor must teach. He concludes with the sentiment that, rather than simply accepting the claims made by the advocates for the use of literature in ESL, instructors should look at the use of literature in the classroom with a critical eye (Horowitz, 1990).

A critical eye is essential for teachers when deciding on how best to serve their students, and many factors are important to consider when deciding on material for classroom instruction, such as, the needs and wants of the student population. It's possible that students can be resistant to reading literary novels outside their field of study, if the novel strikes them as irrelevant, especially for science or engineer majors (Ferris, 2009). However, Spack (1985), when she was a Special Instructor for Foreign Students at Tufts University and Lecturer in the English Department at Boston University, encouraged ESL teachers not to hesitate in teaching literary novels simply because their students are science or engineer majors, because she believed reading material outside their field of study could be beneficial for them. She also believed that science and engineer students' writing suffered from a lack of exposure to writing outside of scientific and technical communities (1985).

Multimodal Texts

Spack (1985) encouraged an interdisciplinary dialogue between the humanities and sciences, which is not that different from multimodality and its attempt to mesh seemingly disparate modes of communication. Meaning-making and language production involves multiple modes or means, which all intertwine in a text, such as design, discourse, production, the relationship between words and pictures, and spatial matters (Kress & Leeuwen, 2001). The shared importance placed on these modes that were considered by some to be separate and distinct is refreshing. Multimodality tries to integrate what purists thought should remain segregated, and brings into question the field-specific nature of Horowitz's argument.

Authors and professors in the field of semiotics, Kress & Leeuwen (2001) asserted that traditionally "the most highly valued genres of writing (literary novels, academic treatises, and official documents and reports, etc.) came entirely without illustration and had graphically uniform, dense pages of print" (p. 1). They also asserted that, likewise, a similar uniformity existed in painting and music (2001). However, in some circles, a much more interdisciplinary flair has challenged this distinct preference for monomodality in Western culture. For instance, in the area of second language writing, Canagarajah (2006) attempted to make space for a multimodal and multilingual literacy tradition by bringing his readers attention to the issue through consideration of multimodal indigenous texts of South America, which are quite distinct from typical univocal western literature. For example, the Kene/Dami textualities of the Kashinawa in Brazil are multimodal texts that, "involve painting, alphabets, and drawing of figures and lines within the same page" (Canagarajah, 2006, p. 600). With this example, Canagarajah advocated for a pluralization of English and pointed to the hybrid nature that languages can entail (2006).

It appears though that Canagarajah overlooked the graphic novel and its rich history despite the pervasive univocal literary tradition in western academic institutions. Chun (2009), during his Ph.D. candidateship in Second Language Education at the Ontario Institute, saw graphic novels "... as part of a literacy continuum of multimodal resources with which students need to be conversant in today's world" (p. 146) and believed that the increasingly multimodal delivery of information requires "that students are exposed to and grounded in multiple modes of representation" (p. 146). Accordingly, Chun (2009) assumed that this exposure to graphic novels gives students more opportunities to succeed in school and beyond.

Critical Visual Literacy

During her tenure at Hunter College of the City University of New York in English education, Schieble (2014), supported the use of the graphic novel *American Born Chinese* by Gene Luen Yang to teach critical visual literacy and provided a sample analysis, which illustrated how not only words, but also images can communicate meaning. For example, Figure 1 demonstrates, through image syntax and layout, that United States school curriculum depicts knowledge and culture as Eurocentric and white. The notable United States map is offered without the designation of state lines in a monolithic manner and monochromatic color, along with the leaders that line the top of the chalkboard; whereas, the middle figure is presented as small and powerless (Schieble, 2014).

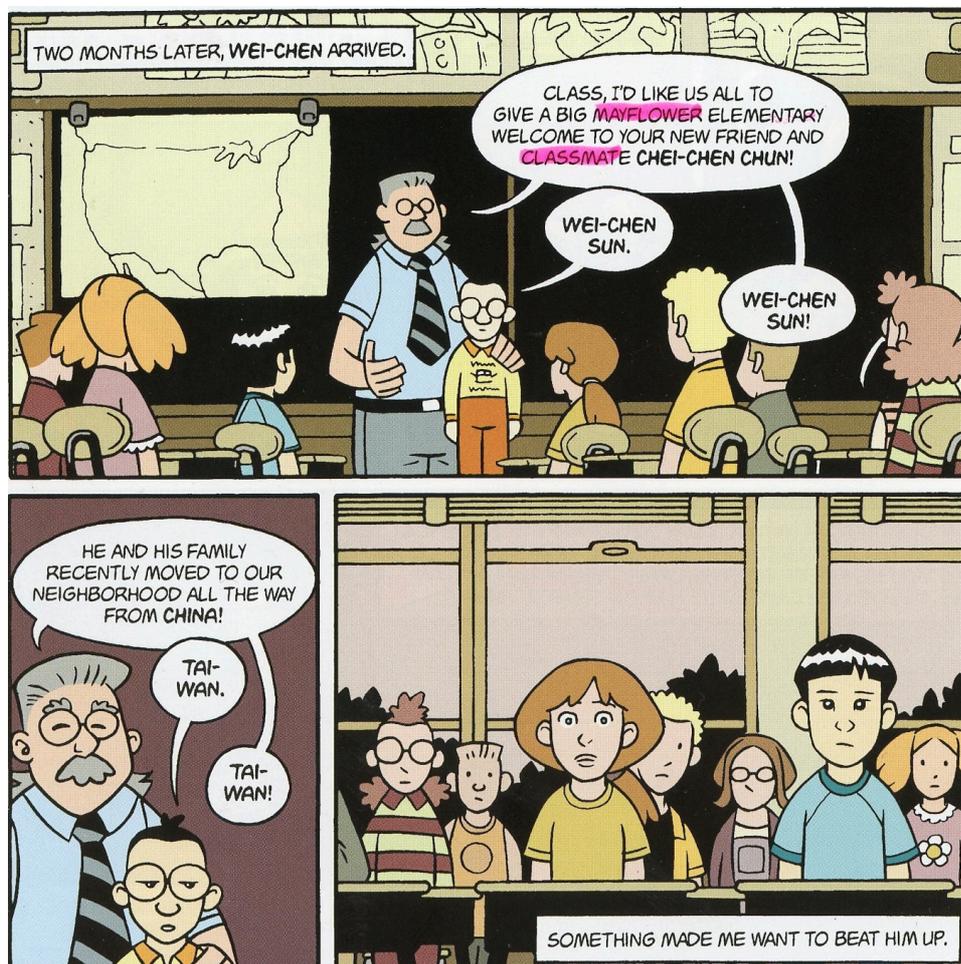


Figure 1. Excerpt used by Schieble for critical analysis

Textually, the mistakes made by the teacher are shown when he mispronounces the student's name and announces that the student is from China when, in fact, he is from Taiwan. According to Schieble (2014), "These blunders comment on the teacher's and school's limited linguistic and cultural knowledge about students who do not represent the mainstream" (p. 51). This example

offered by Schieble (2014) may be used in the classroom to elicit discussion or further develop student's abilities in critical analysis. Graphic novels that feature complex themes, current political realities, and coming-of-age narratives in a time of revolution have been recommended to use as a part of a critical ESL curriculum; examples include: *Barefoot Gen*, *Palestine*, *Safe Area Goražde*, and *Persepolis* (Chun, 2009).

Selecting a Graphic Novel

Two articles appearing in *The English Journal* offer advice in selecting graphic novels for classroom use. Pagliaro (2014) advised that English teachers must determine the criteria for quality examples to provide the highest quality texts to students, due to the differences in validity of graphic novels. As a result, he developed a rubric for determining the literary merit in graphic novels so that forward-thinking literacy educators can provide only the highest quality of texts to their students. Schwarz (2006), in attempts to expand literacies through graphic novels, recommended teachers orient themselves to the field of graphic novels by reading Stephen Weiner's *The 101 Best Graphic Novels* and Michele Gorman's *Getting Graphic! Using Graphic Novels to Promote Literacy with Preteen and Teens*. This writer has found Scott McCloud's *Understanding Comics* is also a good text to help develop an appreciation for the medium.

Using graphic novels in the classroom can present obstacles and concerns for teachers. One of those obstacles is finding classroom-appropriate works because not all graphic novels are appropriate, because some contain obscene language, as well as sexual or violent content. However, there are many legitimate multimodal texts that can be used to address the intellectual needs of ESL students. For example, *American Born Chinese* weaves three seemingly disparate stories together to create a compelling narrative that presents the struggles of identity for a second-generation Chinese American middle school student in a mostly white middle-class suburb of San Francisco. There, he struggles with feelings of alienation and shame because of his Chinese background, which make him to want to assimilate into the culture of his peers and reject his own identity.

Although educators need to be critical in their selection, graphic novels can be viewed as multimodal texts that are appealing to students. The researcher chose graphic novels as the focus of this study because they offer an engaging alternative to traditional literacy pedagogy with contextualized vocabulary and interesting content (Chun, 2009). In addition, the visuals associated with graphic novels help to promote comprehension by scaffolding the text, thereby giving struggling readers another route to make reading more enjoyable and easier to understand (Chun, 2009; Liu, 2004; Krashen, 1993; Pagliaro, 2014).

Word Coverage

Up to this point, the effects of a limited vocabulary, which can make the benefits of literature and multimodal texts inaccessible to non-native speakers, have not been discussed. For this study, *American Born Chinese* was chosen not only because it deals with cultural stereotypes, identity, and racism in America, but also because the author wrote it with a young audience in mind. Therefore, it is likely that the author used more common or high-frequency vocabulary words. Subsequently, the hypothesis is that this graphic novel will be more accessible in terms of vocabulary demands for non-native speakers.

Native speakers are thought to have a command of around 20,000 word-families, which one could interpret as the acquisition of 1,000 word-families per year of life up to the age of 20 (Nation, 2006). If beginning language learners use native speakers as their model, then they could have up to 20 years of language learning ahead of them. However, in practical efforts to speed up this endeavor, service lists have been compiled using corpus data that contain the most frequently occurring vocabulary words in English. For example, The New General Service List (NGSL), a list of 2,800 word-families, provides over 92% text coverage of a typical reading; the list was compiled from the two billion word Cambridge English Corpus of high-frequency vocabulary words for ESL learners (Brown et al., n.d.).

Nation (2006) developed a list of the 14 most frequent 1,000 word-family lists using data from the British National Corpus (BNC) to provide more accurate estimates of the number of word-families needed to read and listen to English intended for native speakers beyond the first few thousand-word vocabulary lists. He explored novels, newspapers, graded readers, children's movies, and unscripted spoken English, but left graphic novels unexamined. For example, 95% and 98% text coverage of the literary novel *The Great Gatsby* would require 4,000 word-families (plus proper nouns) and 9,000 word families (plus proper nouns) respectively (Nation, 2006). Table 1 summarizes the text coverage findings in several novels as reproduced from Nation's study (Nation, 2006, p. 71).

Table 1 *Text Coverage in Several Novels*

Word list	Lord Jim (%)	Lady Ch. (%)	Screw (%)	Gatsby (%)	Tono-Bungay (%)
2,000	87.29	88.09	91.71	87.71	86.95
4,000 + proper nouns	94.24	95.06	96.08	95.02	94.36
9,000 + proper nouns	98.06	98.22	98.52	98.47	98.00
Proper nouns	1.04	2.05	.50	2.12	1.55

The vocabulary sizes necessary for 95% and 98% text coverage of unsimplified texts is understood to provide adequate comprehension at 95% text coverage and pleasurable reading at 98% text coverage (Hirsh & Nation 1992).

Research Questions

1. What vocabulary size is necessary for non-native speakers to adequately comprehend the graphic novel *American Born Chinese* based on Hirsh & Nation's (1992) findings?
2. How can teachers use vocabulary analysis tools familiar to corpus linguistics to facilitate reading for pleasure or 98% text coverage?

Analysis

The researcher used the computer software program and vocabulary analysis tool AntWordProfiler (Anthony, 2014) to determine the necessary vocabulary size to read *American Born Chinese* with adequate comprehension based on Hirsh & Nation's (1992) findings. Computer analysis of a transcribed digital text file of the graphic novel determined that readers would need to be familiar with 4,000 word-families to obtain 95% text coverage (see Table 2), which is the text coverage percentage Hirsh & Nation (1992) found to be a requirement for adequate comprehension. To obtain 98% word coverage for pleasurable reading (as determined by Hirsh & Nation [1992]), readers of *American Born Chinese* would need to be familiar with up to 10,000 vocabulary word-families, which is 1,000 word-families more than the 9,000 word-families required for a typical novel (Nation, 2006). This contradicts the researcher's original hypothesis that the graphic novel *American Born Chinese*, because it was intended for younger audiences, would be more accessible than a regular novel in terms of vocabulary.

Word coverage percentages include coverage of proper nouns because proper nouns can be unfamiliar even to native speakers and carry a minimal learning burden (Nation, 2006). Therefore, previous research assumed that prior knowledge of proper nouns need not be included when calculating text coverage percentages. As a result, the researcher conducted two separate analyses of the graphic novel to come up with the figures in Table 2.

Table 2 *Cumulative percentage coverage figures for American Born Chinese by the ten 1,000 word-families from the BNC with and without proper nouns*

Word list (1,000)	Coverage without proper nouns (%)	Coverage including proper nouns (%)
1	83.32	84.68
2	88.66	90.11
3	91.25	92.73
4	93.35	94.87
5	94.19	95.7
6	94.91	96.43
7	95.37	96.79
8	95.69	97.11
9	95.87	97.3
10	96.06	97.5
11	96.21	97.65
12	96.44	97.88
13	96.53	97.97
14	96.62	98.06

American Born Chinese contains 8,099 tokens (words). As Table 3 shows, the words span over the 14,000 most frequent 1,000 word-families of the BNC word-families list. The first row of Table 2 shows that the first 1,000 word-families from the BNC account for 6,858 of the running words in the novel. This makes up 84.68% of the total running words. The first 1,000 words account for most of the tokens. The 14th 1,000 words in contrast accounted for seven of the tokens. As can be seen, knowing the first 1,000 words of the highest frequently occurring words in Nation's (2006) list would allow about 85% coverage of the graphic novel *American Born Chinese*.

Table 3 *Number of word families in each 1,000 word-family list from American Born Chinese*

Word list (1,000)	Tokens (%)
1	6858 (84.68)
2	440 (5.43)
3	212 (2.62)
4	173 (2.14)
5	67 (0.83)
6	59 (0.73)
7	29 (0.36)
8	26 (0.32)
9	15 (0.19)
10	16 (0.20)
11	12 (0.15)
12	19 (0.23)
13	7 (0.09)
14	7 (0.09)

Here is an extract from *American Born Chinese* with the list levels marked. Unmarked words are in the first 1,000 word-families. Those marked with (2) are in the second 1,000 families, with (3) are in the third 1,000. Those marked with (0) are proper nouns.

When I move here to (0)America, I was afraid nobody want to be my friend. I come from a different place. Much, much different. But my first day in school here I meet (0)Jin. From then I know everything's okay. He treat me like a little brother, show me how things work in (0)America. He help with my (0)English. He teach me (3)hip English (3)phrase like "don't have a (2)cow man" and "word of your --" No, no... "Word to your mother." Haha. He take me to (0)McDonald's and buy me (0)French (2)fries. I think sometimes my (2)accent (2)embarrass him, but (0)Jin still willing to be my friend. In actuality, for a long, long, time my only friend is him (Yang & Pien, 2006).

In this short passage of 121 tokens, six of them are outside of the first 1,000 vocabulary word-families, further emphasizing the importance of high-frequency word-families for extensive reading.

Exploratory Case Study

The importance of understanding the first 1,000 high-frequency word-families is clear, however, the 85% text coverage it allows (see Table 2) is not enough for pleasurable reading or even adequate comprehension based on Hirsh & Nation's (1992) findings. Because reading for pleasure was identified as an effective means to achieve success in a first or second language (Krashen, 1993), one aim of this study was to determine how to facilitate pleasurable reading of the graphic novel *American Born Chinese*.

To accomplish this, the researcher utilized vocabulary analysis tools familiar to corpus linguistics and conducted an exploratory case study with an international student from Missouri State University. The participant was a 28-year-old female born in Japan, who moved to the United States three years prior to this study to pursue a Master's Degree in Early Childhood Education. She was an advanced vocabulary learner according to her test results from Nation's (n.d.) vocabulary size test and began formal instruction of English from a non-native English speaker beginning at the age of 12.

Because computer analysis determined that 98% text coverage of the graphic novel *American Born Chinese* required knowledge of the 10,000 most frequently occurring vocabulary word-families, the researcher placed a focus on vocabulary found in *American Born Chinese* occurring at the 5,000 – 10,000 levels to help ensure the participant a 98% comprehension rate for pleasurable reading (as determined by Hirsh & Nation [1992]). In addition, methodically targeting these words occurring at the 5,000 – 10,000 level was recommended for advanced vocabulary learners (Hellman, 2017).

Procedure

The researcher transcribed *American Born Chinese* into a digital text file and imported it into the computer program AntWordProfiler (Anthony, 2014) where each word of the transcript could be color coded according to which vocabulary level it occurred. The process is easily replicable because the 14 most frequent 1,000 word-family lists (each already separated into their own text file) are freely available from Nation's university website (Nation, n.d.). Once downloaded, the researcher imported the lists into AntWordProfiler, along with the transcribed digital text file of *American Born Chinese*. After the researcher loaded the transcribed text file and vocabulary lists into the computer program, a color-coded level list could be quickly produced to identify words at the 5,000 – 10,000 level (see Figure 2).

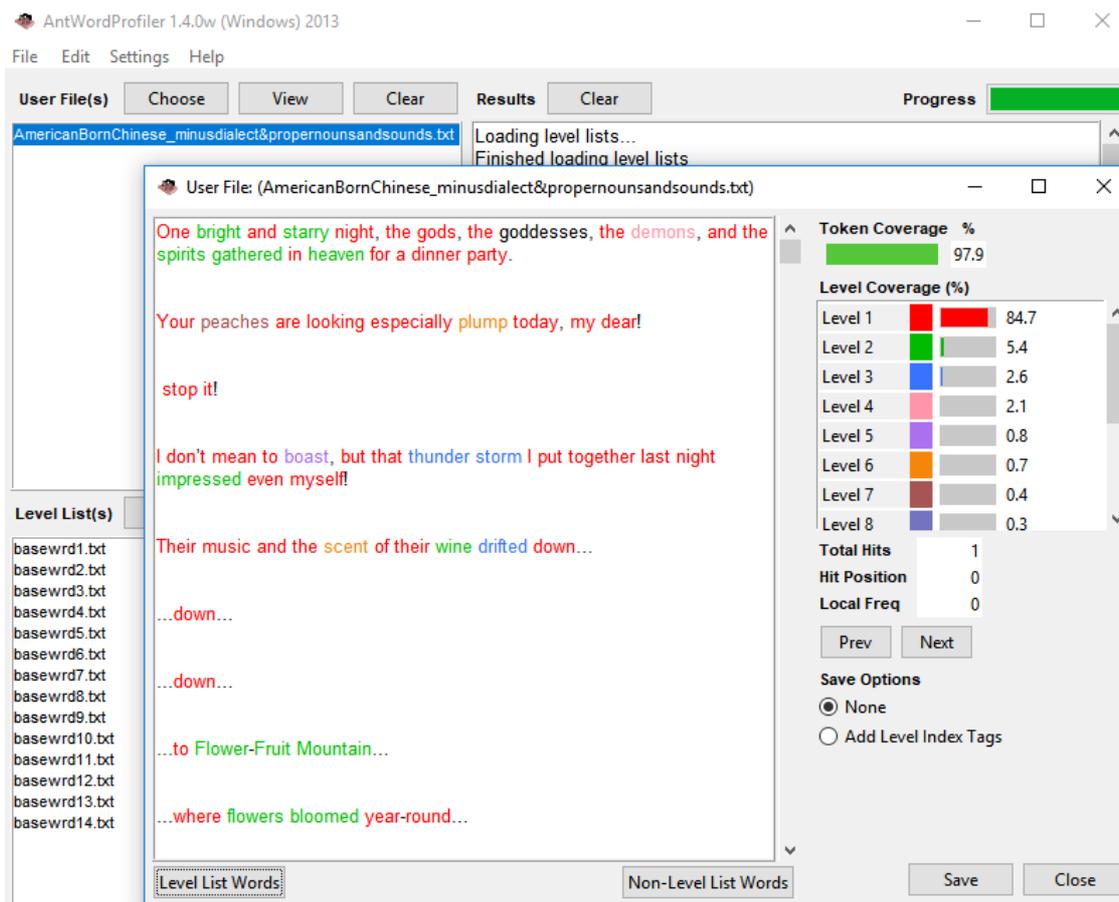


Figure 2. Screenshot of AntWordProfiler with level list words marked

Once located, the researcher highlighted the targeted vocabulary words of the graphic novel occurring at the 5,000 – 10,000 levels and provided definitions in English in the margins on the page where the vocabulary words occurred (see Appendix A). The graphic novel was then given to the participant of the study to read. After the completion of each chapter the researcher consulted with the participant to check comprehension and discern whether the participant found the glossaries helpful. Because the graphic novel contains informal language and culture-specific dialogue, the researcher spent some time as a cultural informant and as an interpreter of American slang and idioms. In addition to the end of chapter comprehension checks, a website and flashcard application, which uses automated spaced repetition scheduling (Memrise, 2016), was employed. The participant used the application to practice vocabulary within the 5,000 – 10,000 levels located in the text before each chapter as pre-reading vocabulary work.

The researcher gave no formal tests concerning the content of the graphic novel, agreeing with Krashen (1993) that reading for pleasure without homework, quizzes, or book reports is the often overlooked foundation of literacy education in foreign language instruction. Instead, the participant responded to general questions about the text, such as: Were you able to relate to the

main character or any other characters in the story? What were your thoughts about this chapter? Did you find the glossaries helpful? Were there any words you struggled with outside of the words contained in the glossary?

Results

From discussions with the participant, it was determined that, overall, she found the graphic novel engaging even though she was not able to directly relate to the main character's struggles with identity. Because she grew up in Japan, she already had a very strong sense of self when she came to America to study. However, the participant felt that this graphic novel was great supplementary material for her anti-bias education course, which she took at a graduate level.

Considering this graphic novel was read outside of her graduate studies, she found the glossaries particularly helpful and thought that without the use of them she might have given up because of the time-consuming task of looking up vocabulary. Moreover, the participant said use of a dictionary is not only time consuming, but also frustrating because there can be multiple definitions for a single word. The glossaries created in this study may have been less confusing because a learner's dictionary provided the definitions rather than a regular dictionary. Learner's dictionaries use corpus data to determine how speakers of the target language normally use the word and provides fewer definitions in a more straightforward manner.

Finally, because illustrations found in graphic novels can serve to scaffold meaning (Chun, 2009; Liu, 2004; Krashen, 1993; Pagliaro, 2014), it is advisable not to separate text from image for a rewrite because this researcher found it more beneficial to create a glossary rather than a graded reader. Both the scaffolding provided by the illustrations and glossaries provided rich exposure to authentic discourse not available in simplified texts. Correspondingly, the participant found the images within the graphic novel helped her to understand the text and mentioned that if she had read a traditional novel, it might have been more difficult.

Conclusion

Because Krashen (1993) considered pleasurable reading one of the highest predictors of language proficiency in native and non-native learners alike, this study was constructed to explore the merit of using engaging visual narratives in the form of graphic novels. This is why the researcher identified and defined (in the margins of the text) mid to low-frequency vocabulary words occurring in the 5,000 – 10,000 range: to help facilitate pleasurable reading for the participant. Moreover, The Program of International Student Assessment (PISA) found reading engagement “more important than socioeconomic background in predicting literacy

performance” (as cited in Chun, 2009, p. 145); this means a cultivation of reading can have profound effects that outweigh even the disadvantages of socioeconomic factors. Altogether, the participant of this study found *American Born Chinese* engaging with the help glossaries, because the glossaries made the graphic novel easier to read. As a result, this gave her motivation to continue reading literary novels written in English above and beyond typical academic texts, like the way she reads for pleasure in her first language.

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Appendix A: Graphic Novel Sample with Glossary

nectar: sweet liquid produced by plants

frolicked: to play & move about happily

deity: god or goddess

Purged: to remove people from an area often in a violent & sudden way

8

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