



a Social Impact Company.

LingoZING! was founded in January 2016 by Kyra Pahlen, based on her experience as a child learning a foreign language through comic books. LingoZING! is the ultimate complimentary language learning app. Designed to simplify and maximize efficiency while learning, LingoZING! has partnered with large academic organizations and Fortune 500 corporations to bring their unique language learning to the world. Also, providing their app at no cost to lower income groups and educational institutions.

Dagda Certifies LingoZING! as a Social Impact company based on the following globally accepted Social Impact principles outlined by the Global Impact Investing Network (<https://thegiin.org/>).

- Access to Education
- Access to Information
- Conflict Resolution
- Equality and Empowerment
- Income/Productivity and Growth

Access to Education

LingoZING! has developed a revolutionary paradigm shifting method for the breakdown and dissemination of foreign languages into digestible bits formatted for consumption, enjoyment, efficiency and retention. The company is absolutely committed in the business plan to providing access to this groundbreaking application for as many disadvantaged students as possible. Currently, LingoZING! has donated 2000 titles in their application to NY teachers, and 500 to French language instructors worldwide. As a further commitment to the disadvantaged, LingoZING! has negotiated reduced prices with publishers to make learning affordable to the under-privileged. Negotiated prices in essence are the same as digital prices for the same content but with added educational value. LingoZING!'s team have also selected titles that help learn specific industry professions. Starting with finance, by licensing titles from Dargaud (Hedge Fund, Office Space etc.). There are new titles in the queue such as Law and Nursing. Those titles will add to what little is currently available in third world countries in terms of professional learning tools, whilst providing 'double knowledge', learning the language and about a given profession.

Access to Information

LingoZING! provides access to the learning, dissemination, consumption and retention of foreign languages. Their exclusive methodology also helps those with Dyslexia; providing another underprivileged group with further and more efficient access to information. LingoZING's management have purposely selected a library of titles that have a double-teaching effect. This is intended to affect those who should or want to learn about History, for example the Glenat library that is written by Historians of the Academie de France and put to graphic novels by renown artists, those who wish to

Copyrighted, Confidential, & Proprietary Property of Dagda Partners, LLC. All Rights Reserved. 2017.



learn about History can do so AND learn a language. Many who will not read a book will read a comic book, which increases the value of the information provided, as the delivery system is widely accepted and therefore will be more widely consumed, the possibility of absorbing knowledge is more attractive. The LingoZING team strongly believe in catering to the dire need for comparative knowledge today. They intend to expand on that theme by adding Philosophy, Art and more along those lines.

Conflict Resolution

The greatest source of conflict worldwide is lack of communication, or inability to comprehend one's 'adversary'. Dagda strongly believes that the LingoZING! application provides the possibility of learning to many generations. Learning via their proprietary technology, methodology and media provides the distinct possibility of opening previously unattainable lines of communication, wherein lies the possibility of resolving world conflict. Learning effective communication skills is part of successfully resolving conflict, none of which is possible without a common language. Successfully resolving conflict also involves empathy, flexibility and maturity as much as it does effective communication; common language is a must. LingoZING! actively selects subjects that will help cultural understanding, this includes comics and graphic novels from different countries.

Equality and Empowerment

For the first time, the Center for Women's Business Research has utilized a methodology to measure the economic impact of the 8 million U.S. businesses currently majority women-owned. Today, women-owned firms have an economic impact of \$3 trillion that translates into the creation and/or maintenance of 23 million jobs, 16 percent of all U.S. jobs. These jobs not only sustain the individual worker, but contribute to the economic security of their families, the economic vitality of their communities and the nation. The significance of the economic impact of \$2.86 trillion proves that women-owned firms are not a small, niche market players but are major contributors to the overall economy. It reveals again the magnitude of the importance that small business plays in the overall economy. According to SBA's Office of Advocacy, 99.7 percent of all employer firms are classified as "small businesses (less than 500 employees);" small businesses employ 51% of all people; have generated nearly two-thirds (64%) of net new jobs over the past decade and a half; and produce 13 times more patents per employee than large patenting firms. From 1997-2002, women-owned firms were growing at twice the rate of all other groups and while the current economic woes have dampened business growth for all segments, women continue to keep pace. However, in most public conversations and in most people's minds, the important players in the economy are the large corporations – which only account for .03 percent of all firms and employ fewer people than small businesses do in total. This research illuminates the economic reality and calls for changing the conversation at a policy level and in the public sphere.

LingoZING! is 55% female owned, and a woman's idea was the genesis of the company. Kyra Pahlen, the founder, has lead the team from inception, bringing the application from concept to working prototype and into the marketplace. Should LingoZING! become an industry leader, Dagda believes strongly that LingoZING!'s Executive Chairman, Kyra Pahlen, will inspire many women entrepreneurs to follow their dreams and become entrepreneurs. This will continue the aforementioned growth trend of female owned and operated companies contributing to worldwide economic growth.

Copyrighted, Confidential, & Proprietary Property of Dagda Partners, LLC. All Rights Reserved. 2017.



Income/Productivity and Growth

The LingoZING! business plan shows a written commitment to donations to under-privileged kids in under-privileged schools, especially in combinations that focus on learning the English language so as to broaden their career possibilities and earning potential. The donation will be a TBD quantity of titles a year. Currently, a minimum of 10% of the company's net income worth of titles, which is ever evolving. Economists have long believed that investments in education, or "human capital," are an important source of economic growth. Over the last 40 years output has risen about 3.5 percent a year. Growth in the productivity of labor, the major driver of increases in wages and standards of living, has measured about 2.4 percent per year. The contribution of education to labor productivity growth is estimated in different studies to be between 13 and 30 percent of the total increase. Whatever the contribution of education to growth in the past, investments in human capital may rise in importance relative to investments in other forms of capital as we transition to a post-industrial, knowledge-based economy. The LingoZING! business model of providing their educational foreign language learning application to underprivileged communities will add tremendously to the potential economic productivity of those communities. This addition to worldwide growth, especially in the third world, will undoubtedly generate significant additional economic opportunities and income for individuals and communities worldwide.

Comics and Language Learning: The Evolution of Visual Language Learning

Introduction

During the last five years, there has been a significant amount of academic research on the effectiveness of traditional language learning methods, particularly amongst younger people and children. Around the world, several leading academics and educators have been reviewing the effectiveness of visual language learning, exploring their potential as complementary tools for traditional learning methods, and examining new ways to teach.

The ability to speak multiple languages clearly offers benefits in a rapidly globalizing world, but new research also suggests that it can help protect from cognitive decline and the onset of dementia in later life (1, 2).

Dr Neil Cohn, one of the world's leading academics from Tilburg University's Department of Cognition and Communication, has produced a White Paper entitled 'The Evolution of Visual Language Learning', which discusses the effectiveness of one particular way to learning languages: through comics.. Dr Cohn presents his latest findings on the subject further below.

Access to Education



LingoZING! has developed a revolutionary paradigm shifting method for the breakdown and dissemination of foreign languages into digestible bits formatted for enjoyment and efficiency. The company is absolutely committed to providing broad access to this application worldwide.

Demands of language learning

Though speaking and writing may appear as holistic phenomenon in our everyday experience, language is a complex human behavior built of several substructures (3). Thus, learning language requires us to incorporate knowledge at these different levels of linguistic structure. At its basic level, a learner must map the meaning of words and phrases to the sounds of a language (phonology), within the context of sentences (grammar). This knowledge applies both for the skills of comprehending language by listening, and through the development of literacy through written language.

Yet, merely knowing words and rules of grammar are not an effective method of learning language: simply memorizing a dictionary is a poor method of linguistic development. Rather, effective language learning is embedded within language *usage*, where a learner can assess utterances together with their context, which can provide both explicit and implicit cues for learning and remembering vocabulary and grammar. The environment or conditions of language learning are often crucial to development.

Given the need for multilingualism in modern society, and that these needs extend both for children in classrooms and adults outside of school, effective non-traditional methods of language learning have become increasingly important (online courses.) One such method that has emerged as particularly effective is learning language through comics.

Comics as a tool for language learning

Despite being maligned for decades as lowbrow forms of artistic expression, comics have grown to become recognized as complex and sophisticated reading material (4). Along with an improving reputation and respect as a genre of publication, a growing number of educators and researchers have begun advocating the use of comics in educational contexts (5-7). Indeed, their use of comics as instructional materials has been gaining empirical support (8, 9). Within this academic advocacy, support has increasingly been focused on using comics for language learning, and thus this has grown over the last decade (10).

People have long offered anecdotal evidence about how comics help them learn languages and gain literacy, and these sentiments have been echoed by educators recognizing comics as an effective teaching tool (11-13). **Recent studies across the world addressing the thematic of whether to include comics into classroom language learning have now concluded that comics provide engaging visual stories that motivate students (14-18).** The familiarity and novelty of comics make them more enjoyable than standard language learning materials (19, 20), and increases a learner's engagement (21) with the learning material. In addition, their authenticity as materials attests them as naturalistic, making them more appealing than artificial language learning exercises (22, 23).

Text and image in cognition

Copyrighted, Confidential, & Proprietary Property of Dagda Partners, LLC. All Rights Reserved. 2017.



Comics offer several advantages to language learning, and are particularly optimized by their multimodal properties. Comics combine a written language with a “visual language” of images (24) to make them an inherently multimodal form of communication (25-27). This means that a reader must comprehend both the text and the images, and then integrate them together. This also means that a reader can potentially use each modality to aid in understanding their other.

Despite this bimodal orientation, the comprehension of images and text may not be as different as once assumed. Recent psycholinguistic research has shown that the brain comprehends the image sequences of comics using similar neural mechanisms as those used to process language (24), and some models posit that both systems of written and visual languages are actually integrated into a single cognitive system (25).

In addition, eye-tracking research suggests that sequential images are “read” using similar methods as reading text (28). Altogether, this work suggests tight cognitive connections between text and images, which could be particularly effective for education (29) and communication, and an optimal place for learning languages. Such work provides cognitive evidence **against** the idea that reading comics is not “real reading”, that it is substantive and cognitively enriching (30).

Text and image integration

While many traditional language learning materials incorporate both text and images, the integration of these modalities in comics provides several advantages. It provides a simulated context for language usage in that people have visualized conversations, and motivates implicit knowledge emerging from this interaction (15). Indeed, several studies indicate that comics allow for enhanced language learning beyond standard educational materials that also use text and images (17, 31-33). Such results extend across learners’ proficiency levels (34, 35), and include age ranges from first graders to college students. Together, this suggests that comics are a widely accessible and effective tool across ages and skill levels.

Some formal qualities of comics’ text-image relationships may support this learning directly. Comics divide text into manageable chunks that can be more easily digestible for a learner to navigate. This comes in two ways: the division of text and images into panels, and the division of text into “carriers” like speech balloons, thought bubbles, and captions (27, 36).

First, the division of information into panels - the framed image-units of a comic - breaks-up overall content into recognizable discourse units. By segmenting a story into panels, a reader can access coherent pieces of a broader story (24). The text in these panels directly connects to the images: the speakers and events that occur within panels. This means that the utterances that appear in text are “anchored” by the content, providing context that reinforces the meaning of vocabulary in implicit ways (26). So, the text-image relationships involved in comics are mutually supportive of each other in a way that should be beneficial to language learning, presented as coherent narrative units.

Second, the text within those panels is broken up by “carriers” of text like speech balloons and thought bubbles. These devices segment text into meaningful chunks that are salient and digestible for a learner

Copyrighted, Confidential, & Proprietary Property of Dagda Partners, LLC. All Rights Reserved. 2017.



(23, 37). By parceling text into these smaller units, it provides a more intuitive presentation of speech than blocks of text, and subtly adds prosodic breaks and other discourse segmentation. Such text is more manageable than the dense text that may intimidate learners from traditional books (38), which thereby helps students to overcome barriers to learning (39). Thus, **the segmentation of text in comics, both at a larger and smaller level, is formatted ideally for learning.**

Vocabulary

This segmentation of text appears to be especially useful in teaching vocabulary, which lies at the heart of learning a language. Indeed, many experimental studies support the notion that comics are an effective tool for vocabulary learning, ranging across grade levels and different language types (12, 18, 33, 37, 39-43).

Comics' efficacy for teaching vocabulary arises also because they contain both colloquial and everyday vernacular along with unusual and sophisticated jargon (19, 20). This terminology cuts across the standard basic vocabulary typically taught in language learning contexts, as it also includes specialized terms related to science, culture, and other unique situations in comics' narratives (15, 19, 20, 41). This provides a learner with more diverse and interesting exposure to language than typical materials.

Comics can also aid in teaching more complicated vocabulary, which often are not included in basic foreign language courses and may require cultural experience to understand (44). For example, onomatopoeia, which are words that characterize sounds like "bang" or "meow", are used throughout comics in sound effects (45, 46). Onomatopoeia are a prevalent and subtle part of linguistic fluency (47), though often fall outside of standard language learning instruction. Comics integrate such knowledge implicitly to add layers of language instruction (19). In addition, the use of idiomatic expressions is often an indicator of fluency, and using comics has shown to be an effective way to learn this complex vocabulary (40).

Note also that Graphic novels, which offer very complex stories, often use sophisticated vocabulary and in so doing make it equally ingestible.

Context

As mentioned, the combination of text and image are particularly strong in comics because they connect language to a pictorial context. Embedding language into a context provides important implicit cues for its actual usage, and reinforces learning. This is especially important because the logical structure and conversational context provided by comics has been posited to better facilitate language learning (22). Within comics, the presentation of a narrative context makes text more natural to understand than the artificial or isolated sentences designed specifically for lessons of language instruction (15, 19, 39).

In addition, using stories to motivate learners provides them with a purpose for engaging with a language beyond just "practising language" (22). They become invested in the story, and thus the desire to understand the plot gives motivation for enhanced language abilities (48). By presenting learners with comics, it shifts the task from "reading to learn" to "reading to comprehend the story," thereby engaging students in language learning without the explicit context of it being a lesson (38). That is,

Copyrighted, Confidential, & Proprietary Property of Dagda Partners, LLC. All Rights Reserved. 2017.



students can focus on learning the language for the sake of the content itself, rather than as part of a “language learning interface” (23).

Conclusion

There is an increasing body of evidence (within recent academic studies and literature) that comics provide an efficient method for learning the complexity of languages across levels. In summary, these advantages include an increase in motivation and desire to learn through authentic materials which present language in manageably segmented speech, and the use of naturalistic and varied vocabulary characteristic of fluent speakers - all embedded through a storytelling context which provides structure and interest. These features appear to benefit learners across age groups and skill levels. Thus, comics appear to provide an effective method for assisting in language learning and literacy.

Dr Cohn is currently at Tilburg University’s Department of Cognition and Communication and is working with LingoZING!, a new revolutionary App in the e-learning market, to continue exploring the benefits of using comics to aid language learning. LingoZING! is the first education tool of its kind to use comic books as an integral part of its learning experience.



References

1. E. Bialystok, F. I. M. Craik, G. Luk, Bilingualism: consequences for mind and brain. *Trends in Cognitive Sciences* **16**, 240-250 (2012).
2. E. Bialystok, Bilingualism: The good, the bad, and the indifferent. *Bilingualism: Language and Cognition* **12**, 3-11 (2009).
3. R. Jackendoff, *Foundations of Language: Brain, Meaning, Grammar, Evolution*. (Oxford University Press, Oxford, 2002), pp. 506.
4. R. Duncan, M. J. Smith, P. Levitz, *The Power of Comics*. (Continuum Books, New York, ed. 2nd, 2015).
5. J. Hosler, K. B. Boomer, Are Comic Books an Effective Way to Engage Nonmajors in Learning and Appreciating Science? *CBE-Life Sciences Education* **10**, 309-317 (2011).
6. G. Mallia, Learning from the sequence: The use of comics in instruction. *ImageText* **3**, (2007).
7. J. B. Carter, Introduction—Carving a niche: Graphic novels in the English language arts classroom. *Building literacy connections with graphic novels: Page by page, panel by panel*, 1-25 (2007).
8. A. Nalu, J. P. Bliss, Comics as a Cognitive Training Medium for Expert Decision Making. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* **55**, 2123-2127 (2011).
9. J. C. Short, B. Randolph-Seng, A. F. McKenny, Graphic Presentation: An Empirical Examination of the Graphic Novel Approach to Communicate Business Concepts. *Business Communication Quarterly* **76**, 273-303 (2013).
10. G. E. Bloom, Thesis, Hunter College, (1979).
11. S. Cary, *Going Graphic: Comics at Work in the Multilingual Classroom*. (Greenwood Publishing Group, Incorporated, 2004).
12. N. Williams, paper presented at the 29th annual TESOL convention, Long Beach, CA, 1995.
13. J. Derrick, Using comics with ESL/EFL students. *The Internet TESL Journal* **14**, (2008).
14. J. Ranker, Using Comic Books as Read-Alouds: Insights on Reading Instruction From an English as a Second Language Classroom. *The Reading Teacher* **61**, 296-305 (2007).
15. J. Llull, Comics and CLIL: Producing quality output in social sciences with Tintin. *Latin American Journal of Content & Language Integrated Learning* **7**, 40-65 (2014).
16. E. O. Tarabuzan, N. L. Popa, Using Comic Strips in Teaching and Learning French as Foreign Language: Changes in Motivational Beliefs. *Review of Artistic Education*, 273-278 (2015).
17. M. Rossetto, A. Chiera-Macchia, 'Visual learning is the best learning-it lets you be creative while learning': Exploring ways to begin guided writing in second language learning through the use of comics. *Babel* **45**, 35 (2010).



18. E. Jones, The use of comic book style reading material in an EFL extensive reading program: A look at the changes in attitude and motivation to read in English in a Japanese university. *Language Education in Asia* **1**, 228-241 (2010).
19. A. Suarez, Teaching Colloquial English through Comics. *新潟青陵女子短期大学研究報告* [Nigata seiryojoshi tanki daigaku research report] **29**, 175-180 (1999).
20. S. D. Krashen, *The power of reading: Insights from the research*. (Libraries Unlimited Englewood, CO, ed. 2nd, 2004).
21. C. W. Chun, Critical Literacies and Graphic Novels for English - Language Learners: Teaching Maus. *Journal of Adolescent & Adult Literacy* **53**, 144-153 (2009).
22. N. Csabay, Using Comic Strips in Language Classes. *English Teaching Forum* **44**, 24-26 (2006).
23. P. Friedlander, in *Learning in and beyond the Classroom: Ubiquity in Foreign Language Learning*, K. G. D. Chan et al., Eds. (NUS Centre for Language Studies., Singapore, 2016).
24. N. Cohn, *The visual language of comics: Introduction to the structure and cognition of sequential images*. (Bloomsbury, London, UK, 2013).
25. N. Cohn, A multimodal parallel architecture: A cognitive framework for multimodal interactions. *Cognition* **146**, 304-323 (2016).
26. J. A. Bateman, *Text and Image: A Critical Introduction to the Visual/Verbal Divide*. (Routledge, New York, 2014).
27. N. Cohn, Beyond speech balloons and thought bubbles: The integration of text and image. *Semiotica* **2013**, 35-63 (2013).
28. T. Foulsham, D. Wybrow, N. Cohn, Reading without words: Eye movements in the comprehension of comic strips. *Applied Cognitive Psychology* **30**, 566-579 (2016).
29. R. E. Mayer, *Multimedia Learning*. (Cambridge University Press, ed. Second, 2009).
30. B. Norton, K. Vanderheyden, in *Critical Pedagogies and Language Learning*, B. Norton, K. Toohey, Eds. (Cambridge University Press, Cambridge, 2004), pp. 201-221.
31. Z. Roozafza, The Role of Comic Reading Materials in Enhancing the Ability to Read in EFL. *i-Manager's Journal on English Language Teaching* **2**, 7 (2012).
32. S. Graham, Comics in the Classroom: Something to Be Taken Seriously. *Language Education* **2**, 92-102 (2011).
33. H. Öz, E. Efecioglu, Graphic novels: An alternative approach to teach English as a foreign language. *Journal of Language and Linguistic Studies* **11**, 75-90 (2015).
34. A. Merç, Y. Kampusu, The effect of comic strips on EFL reading comprehension. *International Journal of New Trends in Education and their implications* **4**, 54-71 (2013).
35. J. Liu, Effects of comic strips on L2 learners' reading comprehension. *TESOL quarterly*, 225-243 (2004).
36. C. Forceville, T. Veale, K. Feyaerts, in *The Rise and Reason of Comics and Graphic Literature: Critical Essays on the Form*, J. Goggin, D. Hassler-Forest, Eds. (McFarland & Company, Inc, Jefferson, 2010), pp. 56-73.



37. M. V. Lakshmi, in *Issue 3: Managing resources*, B. Tomlinson, Ed. (British Council, Kolkata, 2017), pp. 33.
38. A. Baker, Thesis, University of Central Missouri, (2011).
39. I. Cimermanová, Using Comics with Novice EFL Readers to Develop Reading Literacy. *Procedia - Social and Behavioral Sciences* **174**, 2452-2459 (2015).
40. A. Basal, T. Aytan, I. Demir, Teaching Vocabulary with Graphic Novels. *English Language Teaching* **9**, 95 (2016).
41. W. Apriani, M. Vianty, B. A. Loeneto, The use of English comic book series in teaching reading comprehension. *Journal of English Literacy Education* **1**, 100-105 (2015).
42. O. Arast, B. Gorjian, The Effect of Listening to Comic Strip Stories on Incidental Vocabulary Learning among Iranian EFL Learners. *Journal of Applied Linguistics and Language Learning* **2**, 1-7 (2016).
43. M. H. Montalvo Vicedo, Thesis, Universitat Jaume I. , (2016).
44. H. Takashima, Acculturation and second language learning: use of comics to measure the degree of acculturation. *IRAL - International Review of Applied Linguistics in Language Teaching* **25**, 25 (1987).
45. N. K. Pratha, N. Avunjian, N. Cohn, Pow, punch, pika, and chu: The structure of sound effects in genres of American comics and Japanese manga. *Multimodal Communication* **5**, 93-109 (2016).
46. S. A. Guynes, Four-Color Sound: A Peircean Semiotics of Comic Book Onomatopoeia. *The Public Journal of Semiotics* **6**, 58-72 (2014).
47. M. Dingemanse, Advances in the Cross-Linguistic Study of Ideophones. *Language and Linguistics Compass* **6**, 654-672 (2012).
48. S. Gabaron, The power of print reading: comics in the classroom. *Journal of Cell Communication and Signaling* **11**, 285-290 (2017).