INFOGRAPHICS:
AN EMERGING DMC GENRE
IN LANGUAGE CLASSROOMS

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MOTIVATION

- Ph.D. course assignment
- Incorporation of digital multimodal composing (DMC) tasks in linguistics course
DMC TASKS IN TESOL TEACHER EDUCATION
(LI, 2020; LI & DELL-JONES, 2023)

- Students used a technology tool of their choice to compose a DMC product, in which they cumulatively made sense of the linguistic knowledge they had learned and showed how they creatively represented the new knowledge while engaging their audience.

- They used creativity and technology to experiment with multiple modes to construct meaning, engage audience, and represent their linguistic knowledge.
Let’s make words!
Word Creation: Disney Edition
- **DMC GENRE**

  - Digital multimodal composing (DMC):
    A new literacy practice involving the use of digital tools to produce multimodal texts drawing on multiple semiotic resources (Jiang, 2017; Smith et al., 2017).

  - Infographic:
    “An innovative and engaging method of visually communicating information in a colourful and concise manner” (McCrorie et al., 2016, p. 71).
POLL!

- Are you familiar with infographics?
- How many infographic apps do you know?
- Have you already used infographics to help present information in your teaching?
- Have you already assigned infographic composing tasks to your students?
TYPES OF INFOGRAPHICS

INFORMATIONAL

STATISTICAL

https://teachingenglishwithoxford.oup.com/2013/06/18/how-to-teach-english-infographic/

https://www.easel.ly/blog/language-infographics/
• Process
• Comparison

The Research Process

Define the problem
Review the literature
Develop a thesis statement
Interpret your research
Conduct your research
Use key points, events, or data to create an outline
Write the first draft of your paper
Check for spelling and grammar errors. Make sure citations are correct.
When satisfied, turn in your final paper!

Pros
- Efficiency and Accuracy
- Eliminate Human Error
- Reducing Costs (Cheaper Products & Services)
- Improving Human Decision Making
- Improving Human Workflows
- The Mechanical Advantage
- Effective Data Acquisition and Analysis
- Understanding High-Dimensional Data

Cons
- Uncontrollability
- AI Machines Don't (Currently) Have Any Emotion
- Degradation (Unable to Self Repair)
- A Reduced Number of Jobs For Humans
- High Costs
- Lacking Creativity and Out-of-the-Box Thinking
- Ethical Considerations

There is no doubt that AI represents an element of our future.

It's exciting to see, but there is wariness and though conceptions of AI taking over humanity are still confined to SciFi, we cannot be blind to the possibilities. Now, AI has entered our daily world and has made our lives easier in various ways.
INFOGRAPHIC APPS

- Canva
- Visme
- Venngage
- Piktochart
- Genially
- Snappa
- Easelly
- Infogram
WHY USING INFOGRAPHICS IN LANGUAGE CLASSES?


It aids understanding of concepts and enhances memory.

It helps students think critically about a subject, data set, or complex idea.

It helps students organize information in a logical way.

It helps meet tech literacy standards.

It allows students to exhibit their understanding of a subject in different ways. In short, it makes them more creative and look at things from a different perspective.

It helps teachers save time and resources in creating visual aids.
Writing (Maamuujav et al., 2020)
• Integrating infographics into writing curriculum to scaffold the cognitive demands L2 writers face while composing

Presentation/speaking (e.g., Sukerti & Susana, 2019)
• Developing speaking through project-based learning using infographics

Grammar (e.g., Rezaei & Sayadian, 2015)
• Instruction using infographics is effective for the learning of foreign language grammar.

Vocabulary (e.g., Alrajhi, 2020)
• Visualizing infographics facilitates L2 students’ learning of idiomatic expressions.

Reading (e.g., Lopez Cupita & Franco, 2019)
• Using infographics to enhance L2 students’ reading comprehension of academic texts

Motivation (e.g., Bicen & Beheshti, 2022)
• Instructional infographics used in the flipped classroom enhance L2 students’ learning motivation.
HOW TO USE INFOGRAPHICS IN LANGUAGE CLASSES?

• Teach vocabulary

• Teach grammar

Teach contents

Italy Travel Guide

1. What You'll Need
   - Passport and Visa
   - Language: Italian
   - Currency: Euro

2. When To Go
   - May - Sept
   - Nov - Feb
   - Oct - Nov

3. Essential Phrases
   - Hello/Good Bye: Ciao
   - Good Morning: Buongiorno
   - Good Evening: Buonasera
   - Thank You: Grazie
   - How Much Is This?: Quanto Costa?

4. Where To Go
   - Gondola Ride in Venice
   - Drive the Amalfi Coast
   - Pose for a picture in Pisa
   - Tour the Colosseum
   - Meet Juliet in Verona
   - Ski in the Italian Alps
   - Go to the opera in La Scala

5. Must-Eat Specialties
   - Arancini: Stuffed Rice Ball
   - Ribollita: Tuscan Soup
   - Gelato: Italian Ice Cream
   - Osso Buco Alla Milanese: Braised Veal Shanks

6. Where To Go
   - Rome
   - Florence
   - Venice
   - Naples
   - Siena
   - Pisa
   - Milan
   - Amalfi Coast
   - Verona
   - Cinque Terre

https://www.holidayrepresentations.com/blog/italy-travel-guide-infographics/

Japan

- Currency: Yen (¥), JPY
- GDP: $48.8 trillion
- $37,200 per capita
- Inflation: 3%
- Deflation: 3.5%
- VAT: 8%
- Yen (

- Capital: Tokyo
- Freedom of Religion
- Main Religion: Shinto, Buddhism

- Government: Constitutional Monarchy
- with 2-chamber parliament

- Religion: Buddhism, Shinto

- Industry: Aerospace, Electronics, Cars, Chem, Textile

- Population: 126.4 million

https://motivistjapan.com/japan-in-brief/
Key Terms

Corpus-based language learning
Corpus-based language teaching uses real and authentic language, written/spoken and used by native speakers in different settings.

Data-driven Learning (DDL)
An approach that involves getting second/foreign language learners to work with written or spoken corpus data.

What can I learn from this secondary research?
Are there positive learning outcomes resulting from language learners’ use of tools and techniques of corpus linguistics?

64 studies were used in this study

What evidence is summarised?

What does it find?
- DDL works best when the native English teacher is not available
- DDL works in almost any contexts where it has been tried extensively
- Learners seem to be able to perceive the language patterns from DDL
INFOGRAPHIC TASKS FOR STUDENTS

- Infographic yourself
- Resume infographic
- Fan infographic
- Theme infographic
- Convert text to infographic
- Vocabulary map
- Grammar infographic

(https://www.youtube.com/watch?v=fty5RQIG8PU)  

https://piktochart.com/blog/creating-infographic-resume/
RESEARCH STUDY #1  (LI & PHAM, 2023; PHAM & LI, 2023)

EFL medical students’ creation of infographics addressing health topics using Visme
INFOGRAPHIC TASK 1

Students create infographic posters to be shared with their friends and family to instruct Covid-19 prevention. Students should search reliable sources (e.g. public newspaper, journal articles, websites) and use multiple semiotic resources (e.g., texts, images, graphics, hyperlinks) to complete their posters.
INFOGRAPHIC TASK II

Students create infographic posters for their future patients guiding them to control high blood pressure. Students should search reliable sources (e.g. public newspaper, journal articles, websites) and use multiple semiotic resources (e.g. texts, images, graphics, hyperlinks) to complete their posters.
FEEDBACK FROM THE STUDENTS

Student perceptions of Visme

- **Benefits:**
  - Convenience/helpfulness
  - Suitability for infographic tasks
  - Enhancing learning experience
  - Fostering creativity

- **Constraints**
  - Limited functions with free version
  - Low-quality image

Student perceptions of infographic composing

- Developing critical thinking skills
- Developing digital/information literacy skills
- Developing writing skills
TESOL graduate students’ production of infographics based on class readings using Canva
INFOGRAPHIC TASK

Students collaboratively create infographics in pairs describing meta-analysis studies, aiming to transform scholarly written work into a medium that can effectively communicate to relevant stakeholders (e.g., language educators, policymakers). With interested language educators as the target readership, students used various semiotic resources (e.g., texts, images, graphics, hyperlinks) to present a succinct multimodal summary of the meta-analysis studies.

(Reading: Plonsky & Zhuang, 2019)
### FEEDBACK FROM THE STUDENTS

<table>
<thead>
<tr>
<th>Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancing content learning</td>
</tr>
<tr>
<td>Providing cognitive scaffolding</td>
</tr>
<tr>
<td>Fostering communication/collaboration skills</td>
</tr>
<tr>
<td>Fostering creativity</td>
</tr>
<tr>
<td>Enhancing learning motivation</td>
</tr>
<tr>
<td>Improving pedagogical skills</td>
</tr>
<tr>
<td>Developing digital literacy skills</td>
</tr>
</tbody>
</table>
REFLECTIONS

- **Benefits:**
  
  Effective instructional tool; helping with the learning of course content; having both cognitive and affective benefits; improving digital literacy skills; enhancing writing competence

- **Teachers’ role:**
  
  - Provide explicit instructions on how to create effective infographics;
  - Guide students to use digital tools to create infographics;
  - Provide students with an opportunity to present their infographics to a group and receive feedback
DISCUSSION BREAK

After seeing these sample tasks, what infographic composing activities would you consider implementing in your instructional contexts? Please indicate the language, the content you teach, and the infographic composing activity.
Although DMC activities have been increasingly implemented in L2 contexts, assessment techniques geared towards DMC projects just began to receive L2 researchers’ attention. (Li & Akoto, 2021)

Explore integrative analysis of linguistic and non-linguistic resources of DMC products. (Lim & Kessler, 2022)

Develop and evaluate innovative methods to assess DMC products and underlying multimodal communicative competence. (Jiang & Hafner, 2024)

Future research should develop holistic and analytical rubrics suitable for DMC assignments to accurately evaluate L2 students’ task performance. (Zhang, Akoto, & Li, 2021)
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Organization and content</th>
<th>Multimedia and visual effects</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-Excellent</td>
<td>able to present and organize information very clearly, logically, and in original ways; able to fully address the topic with well-supported ideas; references are cited appropriately</td>
<td>able to use visuals to present information creatively and effectively; able to use a wide range of multimodal resources appropriately (e.g., texts, hyperlinks, images, emoticons; tables, graphs, video clips) to construct meaning and engage audience</td>
<td>able to use a wide range of lexicons related to the topic; able to use English with very few errors</td>
</tr>
<tr>
<td>4- Good</td>
<td>able to present and organize information clearly and logically; able to mostly address the topic with relevant ideas; references are cited appropriately</td>
<td>able to use visuals to present information creatively; able to use a sufficient range of multimodal resources to construct meaning and engage audience</td>
<td>able to use sufficient range of lexicons related to the topic; the majority of texts are error-free</td>
</tr>
<tr>
<td>3- Satisfactory</td>
<td>able to present and organize information quite clearly and logically; able to moderately address the topic with relevant ideas; references are included</td>
<td>able to use visuals to present information appropriately; able to use multimodal resources to construct meaning</td>
<td>able to use lexicons related to the topic; make occasional language errors</td>
</tr>
<tr>
<td>2-Marginal</td>
<td>information is presented but lacks clarity, logical thinking, and evidence; the task is addressed with limited relevant and well-supported ideas; lack of references</td>
<td>use limited visual effects to construct meaning; use a limited range of resources to display information</td>
<td>use limited range of lexicons related to the topic; make frequent language errors</td>
</tr>
<tr>
<td>1-Poor</td>
<td>unable to present and organize information clearly and logically; unable to address the topic with relevant ideas; lack of references</td>
<td>barely use visual effects to construct meaning; visuals are inappropriate or irrelevant</td>
<td>use a very limited range of lexicons related to the topic; make a number of language errors</td>
</tr>
</tbody>
</table>
ANALYSIS OF INFOGRAPHICS
VISUAL METADISCOURSE  (D’ANGELO, 2010; KUMPF, 2000)

- **Metadiscourse:**
  “a range of devices writers use to explicitly organize their texts, engage readers, and signal their attitudes to both their materials and their audience” (Hyland & Tse, 2004, p. 156)

- **Interactive** metadiscourse: “primarily involves the management of information flow” (p.44), guiding readers through the text content (Hyland, 2005)

- **Interactional** metadiscourse: “more personal” (p.44), involving readers overtly in the argument/development of the text (Hyland, 2005)
ANALYSIS OF INFOGRAPHICS

VISUAL METADISCOURSE

- **Visual Metadiscourse:**

  The design choices that “support readability and macrostructural consistency” (Kumpf, 2000, p. 404) and that “reveal awareness of visual literacy and of the communication context” (Kumpf, 2000, p. 401).

- **Visual interactive** features “serve to organize the flow of information and help the viewer in the comprehension of the multimodal text” (D’Angelo, 2016, p. 124)

- **Visual interactional** features are “used to attract, involve and engage viewers” (D’Angelo, 2010, p. 44).
## Visual Interactive Metadiscourse

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>Subcategory</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTERACTIVE RESOURCES</strong></td>
<td>Achieved through</td>
<td></td>
</tr>
</tbody>
</table>
| Information Value | - Left–Right  
- Top–Bottom  
- Left–right + top–bottom | Organize the layout of information in a poster |
| Framing | - Frame lines  
- Color contrast  
- Empty space between elements | Distinguish sections of text |
| Connective Elements | - Vectors  
- Repetition of shapes  
- Repetition of color  
- Alignment | Connect ideas and parts of visual and textual discourse |
| Graphic Elements | - Tables  
- Figures (pie charts, graphs)  
- Pictures  
- Other | Clarify and organize data for the viewer, aiding the immediate retention of information |
| Fonts | - Type  
- Size  
- Color | Enhance legibility; Help clarify parts of discourse, highlighting the most important parts of the text; Clarifies the organization of text |

(D’Angelo, 2016)
## Visual Interactional Metadiscourse

<table>
<thead>
<tr>
<th>Interactional resources</th>
<th>Definition</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emoji</td>
<td>Pictorial representation of facial expression showing emotions</td>
<td><img src="image" alt="Emoji Example" /></td>
</tr>
<tr>
<td>Picture</td>
<td>Picture arousing readers’ emotions except for facial expressions</td>
<td><img src="image" alt="Picture Example" /></td>
</tr>
<tr>
<td>Color</td>
<td>Use of colors to arouse the reader’s emotions</td>
<td><img src="image" alt="Color Example" /></td>
</tr>
<tr>
<td>Typographic substitution</td>
<td>A word/phrase with an image embedded</td>
<td><img src="image" alt="Typographic Example" /></td>
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</tbody>
</table>

(Li et al., 2023)
The Silent Killer
It is a condition that occurs without symptoms for many years and in most cases the cause is unknown. If uncontrolled can lead to a heart attack or stroke.

So, let’s control high blood pressure.

How to control hypertension:
- Quit smoking
- Weight loss
- Reduce stress
- Reduce sodium
- Reduce alcohol
- Physical activity

Hypertension
A serious medical condition, so we have to know how to prevent and control it to protect our health.
<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>Infographic A</th>
<th>Infographic B</th>
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<tr>
<td><strong>Visual interactive resources</strong></td>
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<td></td>
<td>LR+TB</td>
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<td>Framing</td>
<td>Frame Line</td>
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<td></td>
<td>Color Contrast</td>
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<td>Empty Space</td>
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<tr>
<td>Connective elements</td>
<td>Vector Element</td>
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<td></td>
<td>Repetition of Shape</td>
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<td>Repetition of Color</td>
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<td>Alignment</td>
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DISCUSSION BREAK

Do you think analyzing visual metadiscourse is helpful? Why or why not?
WRAP-UP
SELECTED REFERENCES


Li, M., & Pham, Q. N. (2022, online first). Three heads are better than one? Students’ digital multimodal writing completed collaboratively vs. individually. Language Teaching Research.

REFERENCES (CONT’D)


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