Exploring Effective Approaches: Enhancing Transferable Skills in Higher Education through Multimodal Assessment

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Agenda of the presentation

Background of the study
Literature review
Methodology
Findings and discussion
Conclusions

About us

Center for Language Education (CLE) at the Hong Kong University of Science and Technology (HKUST) Year-1 common core English course

Purpose of the project:

1. Identify the most transferable skills, highlight recurring themes, and provide evidence-based recommendations based on our findings.

2. Provide practical guidance to fellow educators on how to effectively design and evaluate multimodal assessments in higher education language courses.

Literature review:
Digital Multimodal Composing (DMC)

- DMC is a learning approach involving digital media as affordances for communication

- Examples: webpages, blogs, podcasts, videos, infographics, posters…

Two major theories:

- Multiliteracies Framework for meaning-making and communication

(New London Group, 1996)

- Social semiotic multimodality approach (Kress, 2010)

Literature review:
Skills development from DMC

- Zhang et al. (2021) mention the following skills development from multimodal projects:

- Critical thinking skills (Abdel-Hack & Helwa, 2014)

- Autonomy (Hafner & Miller, 2011)

- Digital empathy (Jiang & Gao, 2020)

- Authorial identity expression (Tardy, 2005) and authorial agency (Cimasko & Shin, 2017)

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Gaps in the literature:
Skills transfer in DMC

- Type of transfer of learning: lateral and vertical transfer, specific and nonspecific transfer, near and far transfer, literal and figural transfer (DePalma & Ringer, 2011)

- The Adaptive Transfer theory: Students both carry forward and reshape writing knowledge and experience learned in prior contexts to fit new ones. (DePalma & Ringer, 2011)

Research questions

RQ1: What is the extent of student perceived **skill improvement** from a multimodal assessment in a university communication course in Hong Kong?

RQ2: Does multimodal assessment in a university English communication course in Hong Kong enhance students' self-perceived **skills transfer**?

Study Design-Mixed Methods

Quantitative; Online Questionnaires,
76 participants, nearly completed CORE1403 in the most recent semester, intermediate level.

Questionnaire focus:
- Background information
- 13 specific skills that students were likely to improve through project participation. Students were asked to rate their agreement with each statement, a 7-point Likert scale ("strongly agree" to "strongly disagree)".

The following questions are based on your multimodal video assessments in CORE1403 course. Please recall your experiences in **Video 1 and Video 2 projects**, and answer the following questions about the development of your non-English skills.

This project helped improve my teamwork skills.

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Study Design-Mixed Methods

Qualitative; Semi-structured interviews, 4 participants, who completed CORE1403 in the previous semester, high achieving students (convenience sample).

Questions were based on studies by Hung (2019) and Yeh (2018) and revised to fit the context of our project.

Quantitative findings

Four skills were identified as the most improved during the student project:
Video editing (M=5.6), Information search (M=5.54), Audience awareness (M=5.5), and Planning and Organization (M=5.46)

Conversely, four skills were identified as showing the least improvement during the student project:
Conflict management (M=4.96), Time management (M=4.95), Aesthetic sense (M=4.91), and Leadership (M=4.67).

The questionnaire yielded an internal reliability score (Cronbach's alpha) of .939, which is very reliable.

Transferrable skills	Mean	SD	Min	Max
Video editing	5.6	1.29	1	7
Information search	5.54	1.02	3	7
Audience awareness	5.5	1.07	2	7
Planning and organization	5.46	1.15	2	7
Communication	5.35	1.13	2	7
Creativity	5.22	1.38	1	7
Critical thinking	5.18	1.30	1	7
Teamwork	5.1	1.32	2	7
Intercultural awareness	5.03	1.28	1	7
Conflict management	4.96	1.34	1	7
Time management	4.95	1.58	1	7
Aesthetic sense	4.91	1.36	1	7
Leadership	4.67	1.54	1	7

Qualitative findings

Six themes were identified through a thematic analysis

1. Communication and Collaboration
2. Transferability of Skills
3. Digital Literacy
4. Prioritization and Time Management
5. Audience Awareness
6. Learning and Personal Growth.

Synthesis and Discussion

Contrasting theme:

- ***Time management*** (ability to use one's time effectively and efficiently, prioritizing tasks and activities to achieve specific goals and objectives.)

Qualitative data: several interview participants discussed time management as a crucial factor in achieving success in their multimodal projects. They highlighted its importance in **managing multiple tasks**, **meeting deadlines**, and staying **organized**.

Quantitative data: time management was amongst the least improved skills in the questionnaire sample suggesting that participants may have **struggled with managing their time effectively** while working on the multimodal project.

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Synthesis and Implications

Overlapping themes:
1. **Digital literacy** (technical skills and abilities related to digital tools and technologies)
2. **Audience awareness** (ability to tailor communication and multimedia features to effectively reach and engage a specific audience)

Digital literacy: Considered by students to be instrumental to the successful completion of the multimodal projects in CORE1403 + applied value that contributed to student personal growth.
Related survey questionnaire themes of ***video-editing skills*** and ***information search skills*** were the two highest-ranked skills found in terms of student improvement within the CORE1403 course multimodal project.

Audience awareness. Explicitly referenced in **each interview**; participants highlighted the significance of tailoring multimodal features to deliver a message effectively with the audience in mind.
Consistent with questionnaire results wherein **audience awareness** was reported as the third most improved skill throughout the CORE 1403 multimodal project.

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Unique Themes

The following are **unique themes** worth mentioning that from the thematic interview analysis:

1. *Transferability of skills*
2. *Learning and personal growth*.

The ***transferability of skills*** theme described how interview participants were able to apply the competencies developed in the CORE1403 course to other areas of their lives, suggesting that the skills learned through multimodal assessment have **real-world value beyond the classroom.** (This theme was not measured in the student survey, as the participants had not yet completed the course at the time of the survey.)

Consider the following quote from one participant whose discussion contributed to this theme:

"I think the thing that I like the most is the video-making process because I think it is a really technical and practical skill that after we graduate we still need to use this video editing skills and I think it's matched the topics of multimodality so I think the video making process and the process of thinking how to make a video is really the thing that I like."

Unique Themes

Learning and personal growth was a unique theme that emerged as a way of categorizing reflections on emotional and skill-based development. Interview participants spoke about **increased confidence, emotional maturity, creativity, negotiation, and communication competencies**. This finding was surprising, as it expanded beyond the initial expectation that students would primarily develop technical skills.

"Well, I think this video project not only enhanced my complicated negotiation skills, but at the same time, it made me more confident. Because I think I performed well in this project. And this confidence really helped me to succeed in other courses (…). I can say that it helped me with my confidence, because I completed a difficult project. So, it's a difficult project where we had to work to very tight deadlines. With a team with different skills. Not everybody was in Hong Kong. So, we have to work remotely. So, we had many challenges, many obstacles. And that's life. You know, this is a very authentic scenario…"

These findings are important because they suggest that the potential benefits of multimodal assessment extend beyond technical skill development and that soft skills may also be important outcomes of this approach. These insights will guide the next phase of the research project as we consider **the long-term value of multimodal assessment** and the role of soft skills in students' overall development.

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Limitations

These limitations are primarily related to the inconsistencies in sampling of participants in both the quantitative and qualitative datasets.

Interview Sampling

The interview participant sample was small (N=4), and biased due to the selection of high-achieving interviewees.

Survey Questions

While the survey approach used in the study was effective in measuring technical skills, it may not have been as effective in measuring soft skills that emerged as key themes in the participant interviews.

Limitations

Timeframe

The **pilot phase was short** and therefore limited to a specific timeframe, which may not have allowed for a full understanding of the **long-term impacts** of the multimodal assessment approach on students' skills development.

Specifically, the **survey questionnaires were distributed to students before they had officially completed the course** and may not have allowed time for adequate reflection on skill development.

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Conclusion

Emphasizing importance of soft skills development

Soft skills development holds significant importance in fostering well-rounded personal and professional growth. While the emphasis in the assessed multimodal projects has been primarily on technical skills, it is crucial to recognize the value of soft skills such as **teamwork, communication, leadership, and time management**. To ensure a more balanced development among participants, future iterations of multimodal projects should incorporate explicit opportunities for the deliberate cultivation and assessment of soft skills.

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Conclusion

Recommending more collaborative aspects in the multimodal project of CORE1403

By incorporating additional elements of group work and collaborative decision-making, students have the opportunity to gain exposure to diverse perspectives, enhance their **communication** and **teamwork skills**, and strengthen their **critical thinking abilities**. Furthermore, collaboration fosters a culture of creativity and innovation, enabling students to engage in collective problem-solving and generate new ideas. It also facilitates the **development of relationships** and teaches valuable conflict management skills that are highly transferable to various contexts.

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Conclusion

Project Multimodal Video

Student Multimodal Video

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