

The Student-Centered Education Design in the Age of Automation: A Case Study

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Abstract: Research into educational design has highlighted the growing concern of learner disengagement in English as Foreign Language classrooms. This issue has received increasing scholarly attention, as the need for reskilling in the era of automation has impinged the way foreign languages are taught and learned at the university level. However, the degree to which this occurs is little explored. This paper intends to investigate the career-related factors that influence learner engagement in the learner-centered education design. Drawn upon Kolb's Experiential Learning Theory and the Biggs' constructive alignments, this paper intends to explicate the possibilities of guided career planning, transferrable skills practice, and technology-assisted multimodal assessments to resolve learner engagement problems in response to automation-induced skill shortages in future workplaces. This paper reports a case study of a standard 45-minute teaching session designed for a first-year foundational course involving a total of 22 undergraduate students. A portfolio of interactive technology platforms (e. g. , Sli. do, Kahoot) and professional tools (e. g. , MBTI, SWOT) are employed. The results revealed improved engagement in learner-centered environments with career-oriented exercises. While the findings cannot be regarded as representative, they point to the positive direction of learner-centered education design in the age of automation.

Keywords: learner-centered; experiential learning; course design; career planning; soft skills

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1. Introduction

Scholarly research on educational design (see Anagün 2018; Cheng et al. 2004; Kohonen 2014; Tevdovska 2015) has highlighted the growing concern of learner disengagement in university classrooms. More recently, concerns about the lack of alignment between discipline-oriented skills and students' acquisition of work-related

professional skills have been highlighted by industry and employers (Ruge Tokede, and Tivendale 2019). A recent internal survey conducted on 22 undergraduate students enrolled in first-year programs at Jilin International Studies University about student expectations and engagement in the EFL classroom has to some degree affirmed the concerns arising from previous research. It is uncovered in the classroom survey research that learner engagement is often associated with an immersive and culturally diverse classroom experience that connects knowledge learning and career-oriented skill practice.

This engagement issue has received growing attention from scholars as the need for reskilling has become increasingly apparent in the era of automation. Evidence from several reports on automation (see World Economic Forum 2020; McKinsey & Co. 2018) has pinpointed that 50% of the current workforce will need reskilling in the next five years. The need to reskill is particularly significant for transferrable skills in tandem with the covid-19 pandemic. Transferrable skills, also known as soft skills, can be explicated as the type of non-technical skills that can influence organizational culture, mentality, and mindsets, leadership style, attitudes, and behaviors. Examples of soft skills encompass problem-solving and critical thinking, ability to deal with complexity and ambiguity, communication, which have been recognized as the “top three areas of missing soft skills” in the future workplace (Society for Human Resource Management 2019: 4). There seems to be rare disagreement that the reskilling needs have impinged upon the way foreign languages are taught and learned at the university level (see Pool et al. 2019; Rieckmann 2012).

However, contrasting the significance of soft skills in the automation-driven future workplace and acknowledging its implications on foreign language education in universities, little has been reflected in the interdependent components of constructive course design, particularly in EFL education. From the extensive literature review, it is revealed that the following gaps related to the three main aspects of learner-centered course design remain to be addressed:

1) *Learning outcomes*. From the literature on the learning outcomes and undergraduate language courses, little has been explored into the inclusion of guided career planning and future career pathways as a component of learning outcome in a foundational course part of a language degree program-specific, particularly for first-year students.

2) *Learning activities*. From the studies on the learning activities regarding programs designed for undergraduate language learners, very few have been found on the integration of transferrable skill practice into the learning activities that are purposefully devised to achieve a career-specific learning outcome.

3) *Assessments and feedback*. Research into the assessments related to undergraduate English language courses is rare in the use of multimodal assessment methods enabled by interactive technology platforms to enhance student readiness to a particular set of transferrable skills required in the future workplace.

To address the gaps mentioned above, the study proposes a learner-centered approach to career-oriented constructive alignments in the foundational course designed for first-year undergraduate language learners in response to the automation-generated skill gaps in the future workforce. The main contributions of this study can be explained in the following three dimensions:

1) *Guided career planning and career pathways as learning outcomes.* The paper proposes the inclusion of career planning and pathways in the learning outcomes of language foundational courses devised for first-year undergraduate students enrolled in program-specific mandatory modules.

2) *Soft skill practice as learning activities.* The study posits the integration of transferrable skill practice into the learning activities that are purposefully devised to achieve a particular learning outcome by the use of professional MBTI and SWOT tools for first-year undergraduate students.

3) *Technology-enabled multimodal methods as assessments.* The study explores the use of interactive technology platforms to deliver multimodal assessment methods. For instance, using the virtual opinion poll (e. g. , Sli. do) and online quizzes (e. g. , Kahoot) may elevate the learner engagement.

2. Aims and Objectives

This paper assesses the relationship between learner engagement and the effectiveness of career-minded course design through a case study of the learner-centered teaching session designed for first-year undergraduates enrolled in the foundational language course as part of mandatory modules. More specifically, it investigates the following research questions:

- 1) How is classroom relevant to learners' future career planning?
- 2) How are learners aware of soft skill practice related to career planning?
- 3) Can learners effectively apply transferrable skills to career-oriented assessment tasks?
- 4) What role does the educator assume in a learner-centric classroom?

To address RQ1 and RQ2, a teaching session for first-year undergraduate students enrolled in the Bachelor of Translation and Interpreting program is devised in an immersive language teaching facility to assess the relevance of career planning to the learning outcomes. The primary instructional language used in the teaching session is English. Considering the language proficiency level of the first-year students, the optional use of the learners' native language is permitted in extraordinary cases. For instance, when a Chinese learner struggles to retrieve the equivalent linguistic resources in the target language during the classroom learning activities, guided career planning and future career pathways will be extrapolated in the teaching session to assist in accomplishing learning outcomes. A series of purposefully designed career-oriented soft skill practices (e. g. , group work, interviewing project, poster and storyboard) will be integrated into the classroom learning activities to facilitate career-related learning outcomes.

To address RQ3 and RQ4, a post-class survey is employed to extract critical learning from learners. The course is delivered in a learner-centric classroom enabled by various interactive technology platforms. For instance, the use of virtual opinion polls (e. g. , Sli. do) and online quizzes (e. g. , Kahoot) may serve to elevate the learner engagement delivered by diverse classroom experiences. The teaching session aims to inspire learners to make sense of career-wide knowledge learning in connection with their career skill practice assessed by multimodal methods.

This paper elaborates on a case study of a standard 45-minute teaching session design involving a total of 22 first-year undergraduate students. Drawn upon Kolb's Experiential Learning Theory, this intends to resolve learner engagement problems from a constructivist perspective.

3. Kolb's Experiential Learning Theory and Biggs' Constructive Alignments on Education Design

3.1 *Kolb's experiential learning theory*

Kolb's experiential learning theory is perhaps "the most scholarly influential and cited model" among the theories on learning and development (Morris 2020: 1064). The framework was first proposed in 1984 by David A. Kolb. Kolb drew upon the work of educational reformist John Dewey, who postulated that learning is a discovery through experience, underscoring the relationship between education and the experience (Dewey 1938). Differing from the behavioral approach to learning, the theory identifies life experience as an instrumental part of the learning process, as insinuated by the claim that "learning is the process of knowledge creation through transformative experience" (Kolb 2015: 49).

The intellectual contributions of this framework to learning in a wide range of areas are manifold. There is seldom disagreement on the statement that experiential learning fundamentally operates on two levels: learning cycle and learning style.

The learning cycle involves concrete experience, reflective observation, abstract conceptualization, and active experimentation. Concrete experience describes a new experience or a reinterpretation of an existing situation. Reflective observation denotes the dissonance between experience and understanding based on a learner's reflection of the existing experience. Abstract conceptualization eliminates learning from experience. Active experimentation depicts the situation that a learner applies the knowledge to the world by trying it out in practice. The four stages in the learning cycle are mutually supportive and feed into the next stage in the integrated learning process, as portrayed by Kolb (1984) that

Learners, if they are to be effective, need four different kinds of abilities –*concrete experience* abilities (CE), *reflective observation* abilities (RO), *abstract conceptualization* abilities (AC), and *active experimentation* (AE) abilities. That is, they must be able to involve themselves fully, openly, and without bias in new experiences (CE). They must be able to reflect on and observe their experiences from many perspectives (RO). They must be able to create concepts that integrate their observations into logically sound theories (AC), and they must be able to use these theories to make decisions and solve problems (AE). (p. 30)

Based on the learning cycle, the learning style explains the learning preference of individual learners. Various factors can influence a learner's choice of preferred learning style. Cognitive structure, social environments, and educational experiences are common examples. Our learning style is usually a product of how we approach (processing continuum, see horizontal axis) and respond (perception continuum, see vertical axis). The learning style inventory can be presented by a two-by-two matrix (see Figure 1).

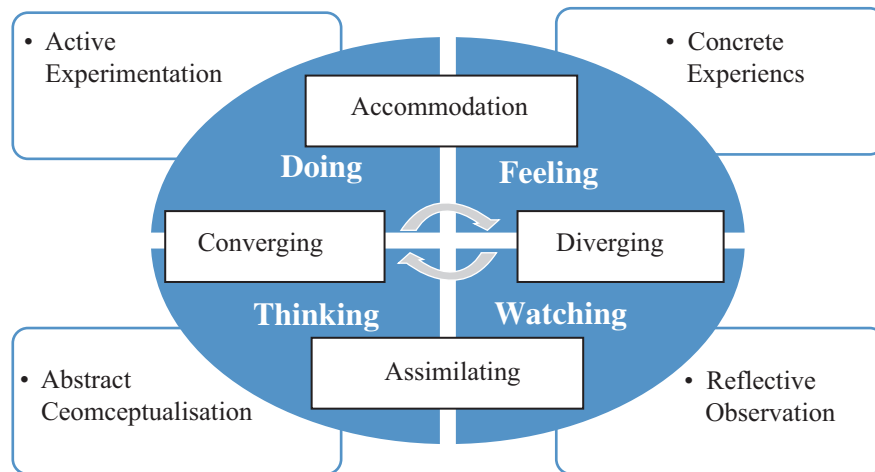


Figure 1: Learning cycle and learning style, based on Kolb (2014)

3.2 Biggs' constructive alignments

Constructive alignment is widely recognized as the combination of constructivist theory and aligned instruction (Biggs 1996, 1999 and 2003; Ruge, Tokede, and Tivendale 2019). The term “constructive alignment” was first proposed by Biggs (1996) in the following statement,

... The curriculum is stated in the form of clear objectives, which state the level of understanding required rather than a list of topics to be covered. Teaching methods are chosen that are likely to realize those objectives; you get students to do the things that the objectives nominate ... All components in the system address the same agenda and support each other. (p. 26)

As the name implies, learning activities and assessments need to be aligned to the intended learning outcomes. An aligned curriculum, therefore, begins with clear learning outcomes, learning experiences designed to assist students' achievement of those outcomes, and carefully designed assessment tasks that allow students to demonstrate their achievement (Biggs 1999).

3.3 Implications on the learner-centered educational design

The student-centered education is regarded as an approach to education that is increasingly encouraged and utilized on many levels of education (Crumly et al. 2014). It is widely defined as the type of education where learners have a choice in their learning (see Hannafin et al. 2014; Jones 2017; Kohonen 2014; Wright 2011).

Experiential learning theory has many implications on learner-centered educational design in the Biggs' constructive alignments model. In the EFL classroom context, the theory serves as an essential guide to inspire teachers to develop appropriate learning opportunities that suit the learners' learning style and focus on enabling activities for learners to follow through four stages of the learning cycle.

In relation to the three interdependent components of constructive alignment in the course design, the main implications of the experiential learning theory on the educational design are summarized in the following three

drivers of learner engagement:

1) *Relevance to future career through guided planning and soft skill practice.* It is important that the concrete experience (CE) stage should provide considerable opportunities for career-related experience. Highlighting the career pathways through a series of learning activities (e. g. , alumni career talks and peer group skill exchanges) and professional planning tools (e. g. , MBTI and SWOT) can be beneficial to students' career planning, which can also add to the relevance of course design to the future skill needs in the workplace.

2) *Variety of in-class learning activities and classroom learning experience.* The benefits of the wide range of learning activities are associated with the actual experimentation (AE) phase of the experiential learning cycle. To enhance learner engagement, efforts can be made in enriching the learning experience through a wide variety of learning activities. Educators can resort to multimodal resources enabled by education-focused technology and integrate multi-media formats into the assessment of learning outcomes. It is useful to diversify classroom learning experiences to facilitate the accomplishment of career-oriented learning goals.

3) *Use of interactive technology and multimodal assessments.* The deployment of interactive technology can provide multimodal resources that expedite the abstract conceptualization (AC) and reflective observation (RO) stages. It is commonly acknowledged that the thinking and watching process can be improved with a multi-sensory experience enabled by visual and audio inputs. For instance, the use of the interactive technology platforms such as virtual opinion polls (e. g. , Sli. do) and online quizzes (e. g. , Kahoot) in the assessments that combine formal and informal feedback in different learning activities may serve to elevate the learner engagement and boost the accomplishment of learning outcomes.

4. The Case

The paper presents a case study of a standard 45-minute teaching session design, involving a total of 22 undergraduate students in hybrid learning environments. The student participants are first-year English language major students enrolled in the mandatory modules of the Bachelor of Translation and Interpreting (BTI) program. The name of the course chosen for the case study is *Communicative English for Chinese Learners*. The course is taught in the foundational stage of the program, aiming to enhance the language proficiency and competency for further elective module learning. The teaching period of this course is 16 weeks in both semesters of the first-year program. The unit of this course is 32 credits.

4.1 Venue and equipment

The venue for the teaching session is the English national pavilion in the Global Village at Jilin International Studies University. The Global Village is a purpose-built, multi-functional facility for teaching, language labs, and social club activities. Several immersive culture elements, including knowledge posters, culture cards, scoreboards, paintings, maps, installations, exhibits, artifacts, and marble sculptures, are embedded in the design of the teaching facility. The physical aspect of the facility intends to foster cultural presence and emulate the felt experience living in English-speaking nations through bite-size knowledge and elements in the micro-

environment. The venue also supports a wide variety of teaching technology and equipment.



Photo 1: Global Village, Jilin International Studies University

The teaching session features multimodality in teaching and learning contexts. Equipment used in this study entails educational games and technology in a wireless network environment. Unlike most traditional EFL classrooms in China, smartphones, laptops, and other portable devices are allowed in the proceedings of the EFL class. Projectors, audio and video players, microphones, speakers, signal panels and classroom broadcasting and command consoles will also be utilized.



Photo 2: English Pavillion, Jilin International Studies University

4.2 Participants and resources

In total, 22 students participate in this teaching experiment. Participants are all first-year university students enrolled in the Bachelor of Arts in Translation and Interpreting (BTI) program. The coursework in this teaching session is part of 3-week practical training, out of the 16-week teaching period in one semester. The position of this course is recommended as one of the introductory courses in mandatory modules for BTI students.

The resources used in the teaching practice can be broadly categorized into two dimensions: One is the primary reference, and the other is the secondary reference by order of priority. The primary resource is the textbook recommended for this course. The title of the textbook is *Comprehensive English for Chinese Learners* (CEFCL), published by the Foreign Language Teaching and Research Press, which is widely awarded as one of the top language textbooks and reference publishers in China. The course material used in this case study is adapted from Unit 7 Looking Forward.

The secondary resources used in this teaching session involve tailored multimodal handouts, including language work, glossary lists, career planning templates, self-reflective forms, and audio-visual screenshots. Professional tools are employed in this study, including Myers - Briggs Type Indicator (MBTI)¹, and



Strengths, Weaknesses, Opportunities, and Threats (SWOT) model².

4.3 Procedures

The teaching session encompasses three stages: preparation, implementation, and assessment. In the preparatory stage, learners will complete three tasks: knowledge search, skill practice and group summary in accordance with the instructions on task descriptions, as shown below.

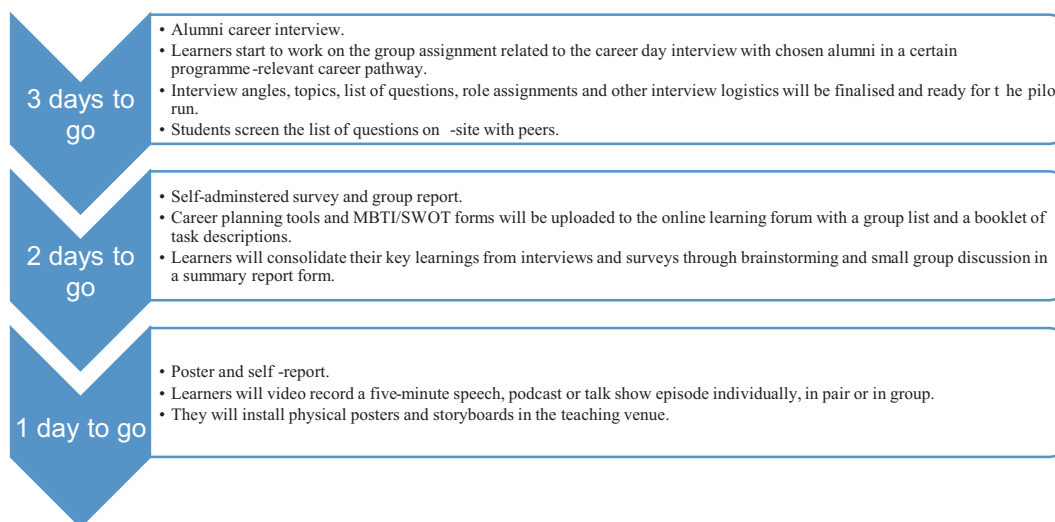


Figure1: The three tasks in the preparatory stage

In the preparatory stage, there are broadly three core tasks to be completed before the class: interview, surveys, and group work report, poster and self-report. The time frame for key activities is summarized in the flow chart below:

Task Category	Sub-Task	Time	Descriptions
Knowledge search	Textbook	10–15 min	Group work: 5–6 people per group Venue: group study room, JISU library Equipment: projectors, visual aids
	Surveys	15–20 min	
	Handouts	10–15 min	
Skill practice	Interview topic	5–8 min	Venue: video-conferencing Format: group work Equipment: conference live recording
	Interview scripts	8–10 min	
	Interview recording	10–15 min	
Group summary	Role play	10–15 min	Role assignment and group work
	Report	5–10 min	Summarize key milestones and findings

Table 1: Task descriptions for students before the class day

In the implementation stage, learners are expected to showcase tangible results from the preparatory stage. Examples include video recordings, photographs, posters, storyboards, activity logs in print or digital formats in the teaching venue or the online learning forum. A portfolio of interactive education technologies, including virtual opinion polls (e. g. , Sli. do) and online quizzes (e. g. , Kahoot), and professional career guide tools

such as MBTI and SWOT tools, will also be employed to boost learner engagement. A section about the learning activities in the tutorial plan is shown in Table 2 below. Due to the page limit, the assessments of learning outcomes and goal attainments will be elaborated in conjunction with constructive alignments in the later discussions of major findings.

Sections	Time	Activities, Tools, Alignments
Lead-in	8–10 min	Sing-along, Kahoot Linking to <u>Knowledge Goal 2</u> , <u>Skill Goal 1</u>
Presentation	10 min	Poster, storyboard, video play, interactive slides, class poll Linking to <u>Knowledge Goal 1</u> , <u>Skill Goal 2</u>
Small group discussion	15 min	Breakout room, digital whiteboard, reflective questions Linking to <u>Ability Goal 1</u>
Think-and-Pair	8–10 min	Sli. do, “One word, one world” Linking to <u>Ability Goal 2</u>

Table 2: Learning activities and alignments with learning outcomes

In the assessment phase, a set of reflective questions will be handed out to learners. The students will work out the answers individually, in pairs, and groups. The question sheet is devised to elicit career-related self-knowledge and enhance self-awareness for more realistic future career planning. Samples of the reflective questions are shown below:

Reflective Questions

- Community (group assessment).
 - ◆ *Which member of the learner community impressed me the most?*
 - ◆ *Which idea did I find interesting or innovative?*
 - ◆ *Which story can I relate to?*
 - ◆ *Which plan does not suit me?*
 - ◆ *What is the most important take-home message from my group work?*
 - ◆ *What aspects do I need to change or improve?*
- Self-knowledge (self-assessment).
 - ◆ *What did I learn about myself from the MBTI results and SWOT analysis?*
 - ◆ *Which description fits my present self?*
 - ◆ *Which aspect does not add up to my self-perception?*
 - ◆ *What are my future career goals?*
 - ◆ *How can I achieve these goals?*

Figure 2: Samples of the reflective questions

5. Findings and Analysis

5.1 Research question 1: guided career-planning as a learning outcome

The objectives of this teaching session involve the inclusion of guided career planning into the component of

learning outcomes in the constructivist approach to course design. As discussed in previous sections, the attempt aims at addressing the increasing concern over learner disengagement in EFL classrooms induced by the questioning on the purpose of language learning in relation to the reskilling needs in the age of automation.

In the design of this teaching session, three dimensions of career-directed learning objectives were integrated into the teaching practice, as depicted by learning outcomes in Table 3 below.

Knowledge	<i>Self-knowledge</i>	Learners can gain self-knowledge through guided career planning using professional tools.
	<i>Language</i>	Learners can acquire language for effective workplace communication using handouts and textbook resources.
Skill	<i>Communication</i>	Learners can communicate in accurate words and tenses describing personality traits and career pathways.
	<i>Collaboration</i>	Learners can effectively collaborate in teams.
Ability	<i>Problem-solving</i>	Learners can brainstorm ideas to solve problems with peers.
	<i>Critical thinking</i>	Learners can critically reflect on the coursework integrating self-knowledge and career skill practice.

Table 3: Learning outcomes related to career planning

An open-ended question is devised in the survey to understand the effectiveness of learning outcomes in the teaching session. The question intends to invite students to write one or two sentences to describe five aspects of the takeaway knowledge after the class, as shown in Table 4 below.

Category	Sample Answers from Respondents
Self-knowledge	“I become more aware of my personality traits and relevant career pathways.”
Language	“I feel confident communicating in English.”
Communication	“Although I still mix up gender pronouns in English, I see improvements.”
Collaboration	“On writing the interview questions, I feel energized by knowing how differently we think yet can still work together.”
Problem-solving	“I think the group poster installation is very helpful. To find a good spot for our poster, we brainstorm ideas and assign roles to make it happen.”
Critical thinking	“I have a fuller picture of my future career options related to this program.”

Table 4: Findings from open statement questions in the survey

The above statements are further verified by the results from the Likert scale questions that invite the learners to rate on a scale of 1 to 5, that is, “strongly disagree,” “disagree,” “neutral,” “agree,” “strongly agree.” The question is about their awareness of the significance of guided career planning and transferrable skill practice about learner engagement. The findings are as shown in Figure 3 below.

- Q1. It is important to know about future career pathways related to the program.
- Q2. It is important to have guided career planning in the course.
- Q3. I believe that learning activities and soft skill practice improve my engagement.

Q4. I feel more engaged to accomplish other learning goals and explore new possibilities.

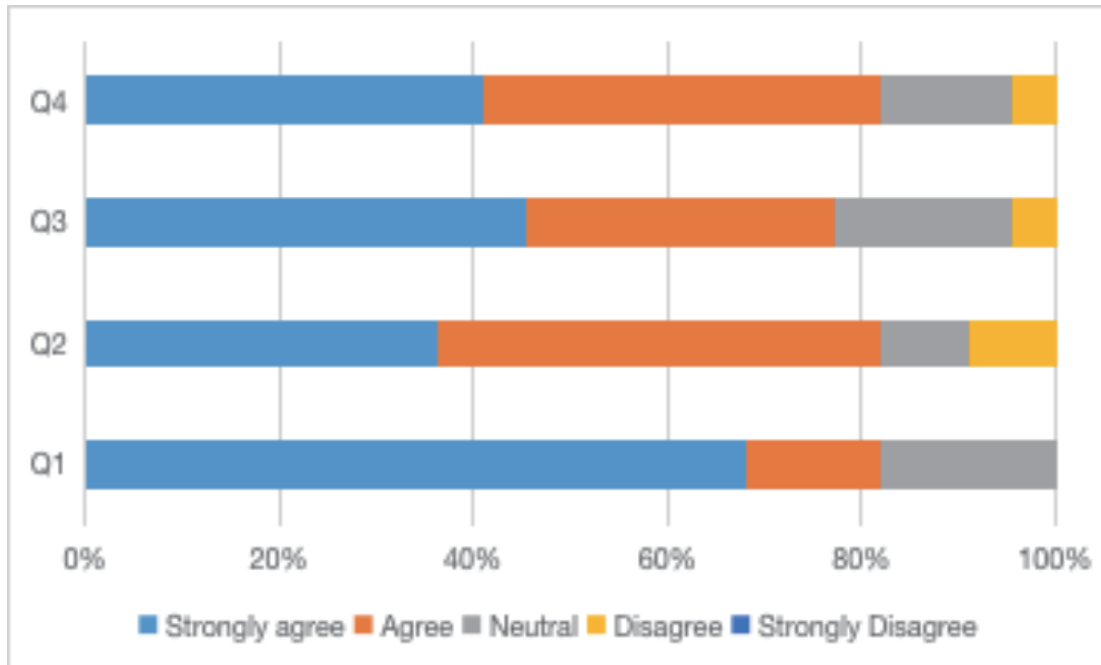


Figure 3: Likert scale results

From the results above, a significant majority (82%) of respondents show agreement on the importance of guided career planning and future career pathways in Q1 and Q2. Note worthily, nearly 68% of respondents “strongly agree” on the importance of program-specific future career pathways as part of the learning outcomes. Regarding the relationship between career-related learning outcomes and learner engagement, 78% believe that learning activities and soft skill practice improve engagement (Q3) and 82% feel more engaged to accomplish other learning goals and explore new possibilities (Q4).

5.2 Research question 2: soft skill practice as learning activities

To achieve these outcomes, in the teaching session, four categories of learning activities are developed for this experiment:

- 1) Informal interviews, including peer interviews, teacher-student interviews, and alumni interviews.
- 2) Surveys based on interviews and tool-based handout preparations.
- 3) Group work, including brainstorming and problem-solving.
- 4) Reports, including presentation and poster sessions.

In the survey, a set of multiple-choice questions are devised to elicit information about the effectiveness of career learning activities concerning learner engagement. The results are shown in Figure 4 below.

Q5: Do you think the learning activities can help you effectively achieve learning outcomes?

From the bar chart, 77% of respondents agree on the effectiveness of the learning activities in relation to learning outcomes, as opposed to only 9% of disagreement. Two follow-up questions are devised to understand

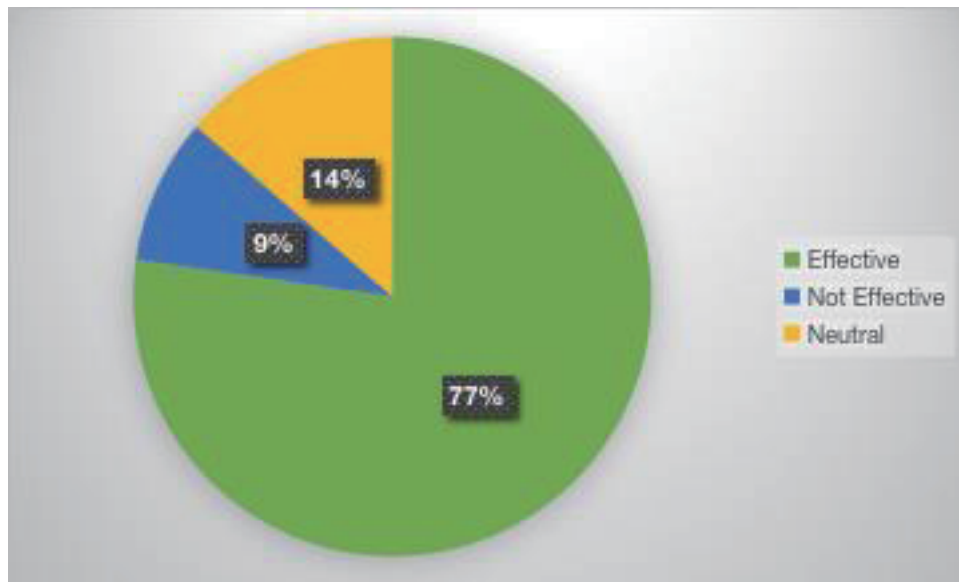


Figure 4: Q5 results

the effectiveness of each learning activity, as portrayed in Figure 5 below.

Q5a. Which activity do you find the most helpful to build your transferrable skills?

Q5b. Which activity do you find the most engaging in your soft skill practice?

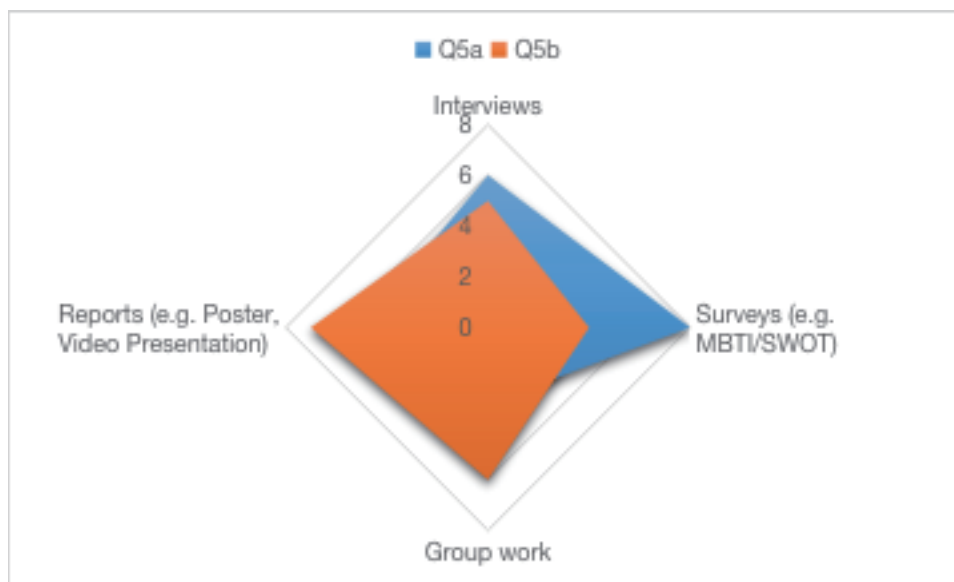


Figure 5: Q5a and Q5b results

In the figure above, the blue part represents the vote on the most helpful learning activity, and the orange part depicts the level of agreement on the most engaging activity. A significant majority of respondents regard the surveys as the most helpful in accomplishing career-related learning goals. A slightly smaller number of respondents consider the reports (e.g., poster and video presentation) the most engaging learning activity.

5.3 Research question 3: technology-assisted multimodal methods as assessments

The research also investigates the use of multimodal assessments enabled by interactive technology

platforms. As mentioned in the previous sections, three main categories of assessment methods are employed to evaluate the learning outcomes and activities. The three categories include quiz (A1), presentation (A2), and surveys (A3) based on the sequence of class progression and the cognitive acquisition of knowledge. The multimodal formats and examples are shown in Table 5 below.

Formats	Examples
Text-based	Posters (A2), Sli. do surveys (A3).
Audio-based	Kahoot quiz (A1), live/in-person presentation (A2).
Video-based	Video logs (A2), video-recorded group presentation (A2).

Table 5: Multimodal formats of assessments

Based on the Biggs’ constructive alignments model, the hierarchy of assessments concerning learning outcomes and learning activities is portrayed in Figure 6 below.

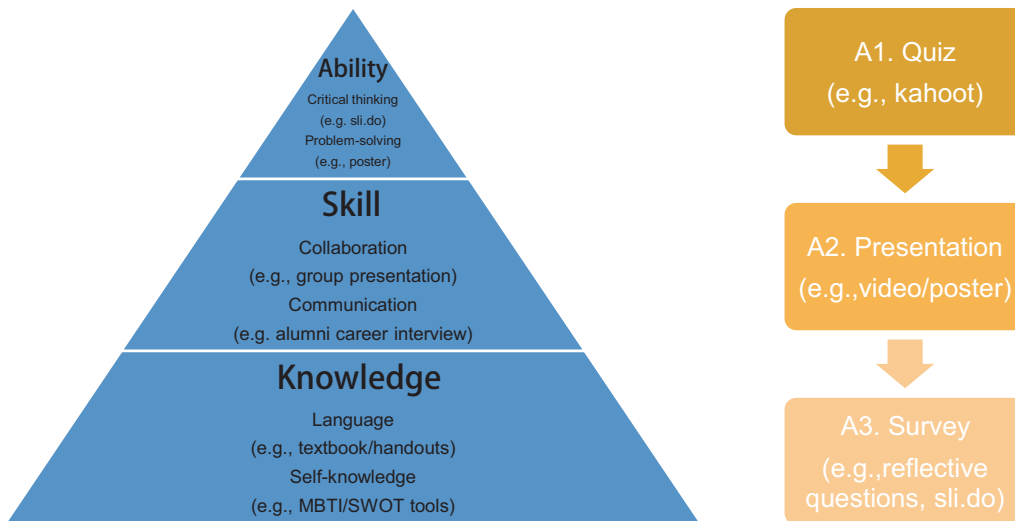


Figure 6: Hierarchy of learning objectives and activities in alignments with assessments

5.4 Research question 4: role portfolio

The last research question is associated with the perception and interpretation of the role portfolio in the learner-centered course design. To acquire the knowledge related to the role and the ownership, a question is devised for students to drag the role items and complete the sentences, as shown below.

Q5: Please drag the role items and complete the sentences.

The peer(s), the educator, the learner (I/me)

_____ is the center of the learning process. _____ is the facilitator of the learning process. _____ is where I belong in the learning process.

From the survey data, learners generally expressed favorable attitudes towards the role portfolio in the learner-centered classroom. The classroom is viewed as “an enabling environment” facilitated by the educator and co-constructed with peer community where learners can develop a sense of belonging and advance towards their personalized career goals. The findings related to the role portfolio question are as portrayed in Figure 7 below.

Learner-Centred Classroom

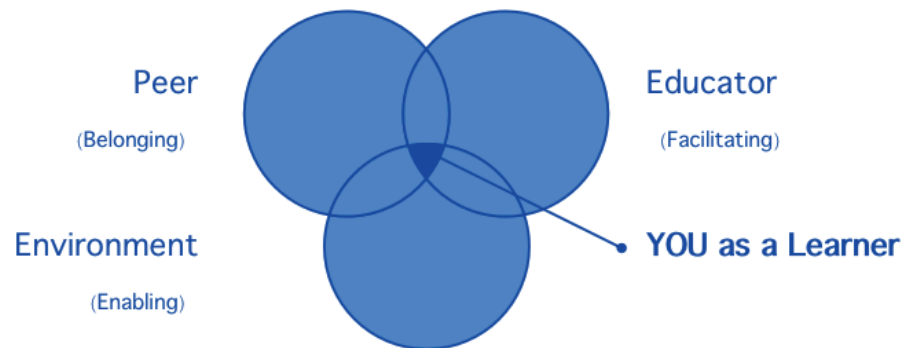


Figure 7: Role portfolio in learner centered classroom

6. Conclusion

It has been widely acknowledged that actions should be taken to address the increasing learner disengagement in foreign language education at universities. It becomes increasingly important that career-related course design is necessary to meet the growing skill-shortage, particularly, that of transferrable skills, in the automation-induced changes in the future workforce, which has provided the grounds for intellectual inquiry of this study. The study intends to investigate the factors that impinge upon the learner engagement in English language education from a constructivist perspective. Drawn upon Kolb's experiential learning theory, the paper proposes integrating career-related elements into the foundational language course design. The 45-minute teaching session and the post-class survey involving 22 first-year undergraduate students have been analyzed. The findings from the case study and the survey show involve:

- 1) It is important to integrate career planning into the learner-centered education design.
- 2) The increased awareness of the significance of transferrable skill exercises is associated with guided career planning in the program-related career pathways.
- 3) The knowledge acquired from guided career planning and the transferrable skills exercised in the learning activities can be applied to resolve learning problems in the use of technology-assisted multimodal assessment methods.
- 4) The role of the educator is perceived as a facilitator, while the role of the learners is regarded as the owner of the learning experience in the learner-centered course design.

Although findings from this case study may not be representative, they point to the positive direction of learner-centered education design in the age of automation. Based on the reflections of results related to the



career-related constructive alignments in the course design, this paper proposes the two aspects of improvements on the educational design for future learner-centric classroom practice:

Firstly, educators can leverage the advantage of a learner-centered course design based on the needs analysis of learner demographics and their generational traits. Generation Z learners are widely described as digital natives, technology savvy, and culturally adaptive (Seemiller & Grace, 2016). Based on the findings related to role portfolio shifts, an educator is expected to act as a classroom facilitator, which means that the educator is recommended to understand what the learners have already known and what they expect to learn. As an organizer of the class, an educator is also required to align learners' motivations, desires, and expectations with the learning outcomes by using a wide range of technology-enabled activities, tools, and exercises.

Secondly, educators need to adapt their teaching philosophy to the needs for reskilling in the age of automation. In an automation-driven lifelong learning society, learners experience differently in every teachable moment. In the EFL classroom, an overly educator-led classroom disengages learners and triggers anxiety over exams and career planning. To achieve this goal, educators can provide a breeding ground to enhance learners' self-awareness and cultivate learners' career-ready soft skills.

Notes

1 The Myers-Briggs Type Indicator (MBTI) is based on the Carl Jung's personality inventory. It is a useful reference tool for career planning.

2 SWOT stands for Strengths, Weakness, Opportunities, and Threats. It is a technique for assessing these four aspects to raise awareness in personal development.

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