

INTEGRATING MAPS THEORY INTO THE DEVELOPMENT OF LEARNING MATERIALS FOR CAREER DESIGN IN JAPAN

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Abstract

Changes related to internationalization, globalization and government policy are visible in many spheres of society but in education and human resource management (HRM) in Japan it is particularly noticeable. Japanese HRM practices have been the subject of much research. Traditionally, in Japan, the recruitment of new employees generally occurs in the spring. Companies select graduating students through a series of interviews, document-based screening, and aptitude-based testing. They tend not to pay attention to the department the student graduated from or their field of specialization, preferring to hire generalists. They are more concerned in hiring students from top-level Japanese universities, based on their potential, as the objective is to mold the student to the needs of the company (Yokoyama & Birchley, 2021) [1]. Promotion panels in Japan usually judge candidates not only on their performance in their job but also on what is termed their '*hitogara*'- which loosely translates as the balance of their personality. Similarly, long-term employment, or the so-called lifetime employment scheme, was a cornerstone of Japanese HRM. Yet, since the 2000's there has been a significant shift towards and an adaptation of Western management concepts. These changes have resulted in Japanese employees taking more initiative of their own career as lifetime employment options diminish. Alongside this, individuals are also starting to turn towards entrepreneurship as a career. Are university students prepared for this change?

The likelihood of increased career mobility means there is a need to better equip students with analytical and social skills. Young people need to understand how their life path can be influenced by not only their academic credentials but also their mindset. However, it is argued that career education is yet to address this need. This research explores the development of new career design materials that are research-based and address the changing needs of students and society. The underlying research question of this study is, when considering future careers, how can we encourage university students in Japan to engage with their possible future selves? The author argues utilizing MAPS theory (Frazier, et.al. 2021) [2] will help develop career education materials that would include viewing career development as a journey to better understanding oneself, as opposed to making a decision on one career or company destination.

This paper shows how the MAPS model has been applied to the development of career design materials to promote behavioural change. The materials utilize the model of self-regulation: integrating metacognition, agency, and possible selves to help Japanese university students to imagine themselves as entrepreneurs working in South East Asia. The presentation will provide an overview of the theory, examples of how the materials were created, and feedback and reflection on a pilot class.

Keywords: Career design, entrepreneurship, possible selves, self-regulation.

1 INTRODUCTION

When a student begins to consider his/her future career they have to decide how to motivate themselves and regulate their behaviour in order to reach their goal. Yet how do they do this? Self-regulation, as defined by Frazier, et.al. (2021:2) is the "process through which individuals control and direct their thoughts, emotions and behaviours to achieve goals." Whether a student is motivated by a desire to work in a famous company or to become an entrepreneur they need self-regulatory skills to succeed. This paper outlines the experience of developing career design materials for university students in Japan which help them to develop such self-regulatory skills and argues that Frazier, et.al.'s MAPS model can be used as an underlying conceptual framework for the development of teaching materials.

Educational materials, particularly in the current era as we emerge post-COVID, need to prepare students for a new future. With increasing numbers of people remote working, the workplace has

changed. The influx of new technology has resulted in a change in the way we communicate. Students, particularly in Japan, are no longer guaranteed the security of lifetime employment that their parents and grandparents experienced. In line with these changes is an increase in interest in entrepreneurship and small business development as a career. Young people today need to be flexible, adaptable, self-aware and prepared to navigate uncertainty and instability. It is the role of the university educator to help prepare students for entry into the new normal and this study represents an attempt to develop new career design materials to better equip students for this journey.

Japan has a set of traditional career development practices and philosophies which attempt to help students find employment post-university or high school. Three important facets of the approach are mass recruiting of new school graduates, a sense of belongingness to a firm and the role of career guidance.

Traditionally, students are hired by firms in a large group with 18 months to one year of officially starting work. April 1st marks the first day of the new fiscal year in Japan and that is the day new employees usually begin their employment contract. Secondly, it is common for students to be hired more on their 'fit' to the company rather than on a specific set of skills they have for the workplace. The company trains the employee from scratch and moulds them to the needs and vision of the company. Thirdly, career guidance at university is a subject that was often taught by regular academic teachers who are non-professional career advisors. This is changing and universities have career centers where students can get a myriad of support and guidance. These services are backed up by classes in career design and by the seminar teachers, who not only guide the students through academic subject and their thesis but also provide pastoral support and career guidance acting as somewhat of a '*in loco parentis*' for the students.

From 1999, the Japanese government put more focus on career development in light of an increase in the number of 'freeters' (unskilled, part-time workers flitting between jobs) and NEETS, defined as young people who were not in employment, education or training. Therefore, from 2005-2008 the government incentivized young people to consider their futures by requiring them to take 5 day-work experience during junior high school. Further changes arose in the 2000's, including better training for career advisors, sharing of best practices and various policies and initiatives to increase awareness of the need for career design. Although the traditional system is changing there are new sets of challenges which focus on student's mental health and well-being, particularly as studies show students feel overwhelming levels of anxiety when job hunting (Morita, 2017) [3]. This anxiety also increases now that internships and working part-time while studying (Shibuya, 2019) [4] are basic expectations potential employers put on student applicants. Finally, with strict fashion protocols regarding dress and physical appearance in Japan there is an increase in anxiety for sexual minority students during job hunting activities. To summarize, although Japan has followed a very rigid job hunting and employment system, this is changing, albeit slowly and teachers tasked with supporting students on this journey need to have access to materials they can use in the classroom which will help prepare students to envision themselves and their future.

The underlying research question of this study is, when considering future careers, how can we encourage university students in Japan to engage with their possible future selves? Sub-research questions for this study include:

- a). Which theories can better inform the development of career design teaching materials?
- b). How can teaching materials based on these theories raise students' awareness of opportunities for entrepreneurship?
- c). How can teaching materials based on these theories raise students' international awareness and intercultural competencies?

The following section will explain how the case was developed, how it was piloted and the student and teacher reaction to the materials. It will conclude with recommendations for the future of career education in Japan.

2 METHODOLOGY

This study takes a case approach in that focuses on the development of career design materials at one university in Japan. This paper provides a descriptive case study of how the materials were designed and developed. Essentially, it is a case study of the use of narrative case studies in career education. The materials developed for use in the classroom are evidence/research based and were

developed through the process outlined in Table 1. The university is a four-year university in central Tokyo, the students piloting the materials are in the Faculty of Business Administration and the Faculty of Global Communication. The impetus to develop new career design materials came from an understanding that the role of work was changing, the needs of Japanese society are changing and students themselves are changing. This requires a different approach to the way career design is explored and presented to young adults. In addition, these materials were designed to help students to visualize beyond the traditional structure of a job for life. By introducing them to Japanese entrepreneur role models who have found success outside Japan it was envisioned that students would also develop greater intercultural awareness and curiosity about not only being an entrepreneur but also working outside Japan.

Table 1. Process of Materials Development

Step 1	Step 2	Step 3	Step 4	Step 5
Conducted academic research and fieldwork interviews	Published the findings as an academic book	Extracted the relevant findings from the book	Explored different frameworks & concepts for how to organize and present materials to make them accessible to students and in-line with course aims and objectives	Decided on MAPS as a framework
Step 6	Step 7	Step 8	Step 9	Step 10
Developed the structure of textbook	Created draft chapters to pilot with students and show to publishers	Reflected on pilot	Finalized materials / sought permission for use of cases	Developed social media materials to support the textbook

The realization that career design needed to change arose from the findings of an extensive academic research project on Japanese entrepreneurs in South East Asia (Stage 1 and 2). Through the research it was found that the career education the entrepreneurs received was inadequate and that by introducing students to real world role models and examples of their experience and practice would open students to new understandings of what constitutes a ‘career.’ The findings highlighted that constructivism in education is an ‘approach to learning in which learners are provided with opportunities to construct their own sense of what is being learned by building internal connections or relationships among the ideas and facts being taught (Borich and Tombari, 1997) [5] would be a preferred approach to career education. The focus should be on educating FOR entrepreneurship; through collaboration, project-based activities, critical and creative thinking. Through the activities students should be encouraged to develop ideas of their possible selves and international posture, while cultivating respect for a career in entrepreneurship (Yokoyama & Birchley, 2019).

The entrepreneurs’ cases and basic information about the countries in which they work were extracted and developed into materials appropriate for teaching career design concepts and basic business knowledge. In addition, it also sought to raise awareness of the economics of South East Asia. The materials will be published in fall 2021 by a Japanese publisher, will be printed in Japanese (with English materials on-demand) and will be accompanied by teacher resources and social media.

3 RESULTS

This section will present the rationale behind the development of the materials and a sample of the materials.

3.1 The MAPS Model

The MAPS model of self-regulation was designed by Frazier, et.al. (2021) (Fig.1). The model ties together the components of self-regulation, namely, (a) the embodiment of goals– notions of what we

can become— that motivate behavior (i.e., future selves or possible selves), (b) the means of change in the form of the process and application of strategies and techniques to implement goal-directed actions (i.e., effective metacognitive and control strategies), (c) the effect of our actions in terms of our sense of self-competence, self-efficacy, and active engagement (i.e., agency), and finally, (d) the behavioral outcome (i.e., goal achievement or discrete sub-goals toward goal achievement), that results from specific decisions, actions, and behaviors that the individual takes from working toward their desired goals (Frazier, et.al., 2021).



Fig. 1 The MAPS Model: The MAPS model of self- regulation displays how the process of self- regulation is influenced by one's possible selves, metacognition, and a sense of agency by Frazier, et.al. (2021)

Metacognition is the conceptualization of how we think about thinking, or in other words our feelings and experiences about how we think (Dunlosky and Tauber, 2014) [6]. It allows for self-regulation through the processes of metacognitive control (Efklides, 2011) [7].

Possible selves are the visions that we have of ourselves in the future. Possible selves are a future-oriented, personalized, affect-laden, motivating form of self-knowledge, which provides a link between one's self-concept and incentives for future behavior, an interpretive framework for an individual's current views of self, and a way to link present behaviors with future outcomes (Meara, et al. 1995) [8].

Agency is our sense of control over all aspects of our life. It is our control over how we think, how motivated we are and our behaviour. It is essential to how we interact and function with the world around us. By understanding and having a sense of agency, we are able to change the direction of our lives and the situations we find ourselves in.

In this paper, it is argued that if a student is considering his/her career, they have to have a vision of their possible self, but similar to the examples given by Frazier, et.al. (2021), someone considering their career will also need metacognitive strategies to improve their chances of finding the right employment to suit their vision. When someone has a clearer image of their possible self, this affects their sense of agency and sees them being more in control, which subsequently means their self-efficacy and intrinsic motivation increases. The majority of career design materials used at university do not address the concepts of agency, self-efficacy, motivation, and possible selves, therefore this research seeks to find a way to introduce these concepts to students via a textbook.

3.2 Application of MAPS to Career Design Materials

This section will highlight how the MAPS concept was practically applied to the development of the textbook material.

Table 2 shows the structure of a sample chapter of the textbook. The beginning chapters and end chapters which bookend the country cases provide more information about the context, economic and business situations, career design theory, and practical activities such as business plan development templates.

Table 2. Sample Chapter Structure

Section 1	Country Data	Basic factual data and visuals about the country in South East Asia
Section 2	Exploring the Country (Pre-Reading Tasks)	Discussion questions to develop metacognition
Section 3	Explanation of the Country (Post-Reading Tasks)	Comprehension tasks to understand the country context
Section 4 (*)	Research Tasks	Tasks to engage a sense of agency, focusing on 'possible selves' development
Section 5	Introducing the Case	Cases include detailed narrative descriptions of an individual entrepreneur's career path journey, possible selves mirroring
Section 6	Questions about the Case Career Path	Questions focus on developing students' image of possible selves, sense of agency and metacognitive development.
Section 7	Reflection Tasks	Research, project, presentation, groupwork/pair work highly engaged, semi-structured activities

(*) optional activities offered online.

Table 3. introduces the key points of each concept and the types of activities that were designed to illustrate and illicit understanding of the concepts. The questions in italics are examples of the type of questions used in the text (they refer to the narrative cases and the context of entrepreneurs working outside Japan).

Table 3. Practical Application of MAPS in Material Development

	Practical Application of MAPS in Material Development	
	Key Points	Activities in the Textbook
Metacognition	<ul style="list-style-type: none"> Encourage students to think their own thoughts Encourage self-awareness, self-talk, monitoring, decision making Raise awareness of options 	<ul style="list-style-type: none"> Activities to reduce "either or" thinking: <i>"List up the options you have post-graduation"</i> Open ended questions: <i>"What kind of pressure do you think the entrepreneur might feel from Cambodian society?"</i> Skills inventory: <i>"What skills and abilities does the entrepreneur</i>

		<p><i>need to succeed in her business? What skills do you currently have, what skills do you want to improve?"</i></p> <ul style="list-style-type: none"> • General problem-solving tasks
Agency	<ul style="list-style-type: none"> • Help students form an action orientation • Facilitate/empower students to take responsibility for own career • Highlight importance of having a narrative • Highlight importance of having a career anchor 	<ul style="list-style-type: none"> • Introduce Super Life Stage Theory [about the case] <i>"Why do you think age 25 was a pivotal year for her?"</i> • Activities to raise awareness of joint action in agency (e.g., who were the co-participants in the entrepreneurs' action?): <i>"What do you think inspired her to live in Cambodia? Who is her mentor?"</i> • Activities and questions to build reflexive process: <i>"She has eight local staff members. What do you think are some of the challenges she faces in working with foreign staff in an international context?"</i> • Fill the book with narratives, help students develop their own contextual narrative: <i>"Describe your working life (in your part-time job)"</i> • Include questions about how the entrepreneurs' work/life intertwine: <i>"Case B said there is a blurred line between work and life, much of his time is spent networking. What skills do you need to be a good networker? Where can you make connections outside work?"</i>
Possible Selves	<ul style="list-style-type: none"> • Develop a sense of self-concept = increased confidence • Valence (positive v. negative selves) • Elaboration (general v specific) • Discrepancy (current v future self) • Identity-based motivation theory (Oyserman, 2019) [9] • Implementation Intentions (Gollwitzer and Sheeran, 2006) [10] = active strategy knowledge 	<ul style="list-style-type: none"> • Reflection activities: <i>"What could you learn from these entrepreneurs?"</i> • Prediction activities: <i>"If you were to start a business in Cambodia, what kind of business would you want to do?"</i> • Analysis of the positive and negative aspects of others: <i>"Case A suffered financial losses how do you think you would cope in that situation?"</i> • Hopeful and positive questions: <i>"What goals has she achieved so far in her life and what are her future goals?"</i> • Identity discovery tasks: <i>"Consider how you would introduce yourself to a new business associate"</i>

		<p><i>“What is your career anchor?”</i></p> <ul style="list-style-type: none"> • Activities which help an individual to specify “when, where, how”, e.g. <i>“If X happens, I will do Y”</i>
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3.3 Feedback & Reflection on the Materials

3.3.1 Student Feedback & Reflection

At the end of the pilot, students were asked to give feedback on the materials and cite what they had learned. Their open-ended answers were coded, and Table 4 provides a sample of the findings with actual student comments in italics.

Table 4. Sample of Student Reflections on the Cases

Theme	Student Reflection
Possible Selves	<ul style="list-style-type: none"> • <i>I was surprised that the entrepreneur keeps challenging new things without being satisfied even if she achieved something. I don't think I could do that, I would give up</i> (Valance – negative opinion of oneself) • <i>I would like to start business selling sweets in a restaurant because I would like to live in a hot country where I can harvest a lot of fruits and cacao I could cook deserts that were very fresh. I can imagine working in the Philippines.</i> • <i>I would not start to do my business because I do not have the confidence and spirit of adventure.</i>
Agency	<ul style="list-style-type: none"> • <i>He started to learn about business after he left for Vietnam, this was surprising as usually you learn something before you do decide to do it.</i> • <i>I think it is amazing that she got up at 1 am and after 2 h of mentally preparing herself at home, she would go to work at 3 am to start making bread. Also, it is surprising that she visited a total of 33 countries in 10 months. She is very determined and has a goal</i>
Metacognition	<ul style="list-style-type: none"> • <i>I was surprised by her luck and her connections. I thought that when we start a business the big problem is money things but she could received money a lot from her conections</i> (reducing either/or thinking) • <i>I wouldn't be able to decide between my husband and my business.</i> (encouraging decision making, thinking of own thoughts)

In addition, students we asked to assess their own skills on a skills inventory. After engaging with the cases, the majority of the students believed they already had flexibility, high psychological capital and international experience yet they felt they were lacking intellectual capital, the ability to understand ethical issues and need for adventure. All of the 25 students surveyed wanted to develop strong networks and surprisingly 14% had no interest in developing risk-taking strategies. Similarly, 14% had no concern for the future. These students are currently in the process of job hunting and designing their career so a longitudinal study would be of interest. Five of the 25 students stated that prior to the lesson they had not considered what they could do as an entrepreneur yet through the business plan activity, they had a better idea of what they could potentially do after engaging in initial work experience in Japan. One student stated in the feedback that he was now seriously considering *“backpacking post-graduation”* to gain *“more real-world experience”* before entering the workplace because he could see the *“value of developing non-academic skills and knowledge”* through the cases in the book.

One other notable aspect among the student feedback was that students were moved by the entrepreneur's passion for their work and life. Each case in the book goes into extensive detail of the highs and lows of the entrepreneurs' career paths. Students were able to recognize that similar to having a career anchor having an innate ability to believe in oneself and have passion are also keys to having a successful career. The entrepreneurs had a high degree of self-efficacy and students were able to recognize that fact. Students were "*surprised*" that some of the entrepreneurs were able to "*turn their life around*" after difficult emotional or financial experiences. The students could contemplate what they might do if they were in a difficult situation. Similarly, the majority of students were able to recognize the importance of networking through the cases citing a desire to expand their network and "*develop communication skills*".

In general, the students were highly engaged by the material stating that they enjoyed reading about "*real people*", "*talking about them with [my] friends*" and "*thinking about [their] future*." However, a number of students stated that they felt some "*anxiety*" and "*pressure*" when thinking about their future career and also felt the case examples in the book were "*special*" and "*not like [them]*" showing that students felt some sense of distance between who they are and their possible selves.

The underlying research question of this study was when considering future careers, how can we encourage university students in Japan to engage with their possible future selves? In answer to that question, the author envisages a career education that would be socially-constructivist based, viewing career development as a journey as opposed to making a decision on one career destination. Within this context the student is surrounded by multiple stakeholders, not just a career advisor, but by classroom teachers, professional advisors, industry leaders and facilitators, a sophisticated integration of professionals.

In terms of what theories can better inform the development of career design teaching materials, bringing together metacognition, agency, and possible selves has been shown to have positive impacts on the students although a wider, longitudinal study is necessary. These kind of teaching materials can raise awareness of opportunities for entrepreneurship by showcasing real-world role models that the students can contact and view their businesses via social media. This also encourages students to seek out a mentor for guidance. Finally, these materials can help raise students' international awareness and intercultural competencies as they are learning about the economic, social, financial and political systems in neighbouring countries in South East Asia.

Four main principles for developing materials for career education have emerged through this project: self-awareness, opportunity awareness, decision learning, and transition planning. In addition, any materials which are created should do the following:

- Achieve impact
- Help learners feel at ease and connected to near-peer role models
- Help learners develop a sense of agency and confidence in decision making
- Encourage students to invest in themselves and their futures
- Encourage involvement via various active and passive activities which can stimulate students to think intellectually and emotionally about themselves and their future.
- Encourage students to widen their network (and seek out mentors) through activities and experiences both domestically and internationally.

Although the piloted materials include a lecture (which is a no agency condition, passive teaching style) they also include opportunities for students to engage in high-agency conditions such as discussions, group and pair work projects and activities. These activities are scaffolded and have a sense of guided agency for the students. By being able to exert some form of agency in choosing what questions to answer in the class, the students are actively engaging in the lesson. This active engagement helps the individual to have a sense of agency which in turn increases learning and idea development. In conclusion, initial feedback from the students has been positive and further evaluation will be conducted as the materials come to publication.

4. CONCLUSIONS

It is argued that to attain the goal (in this case the goal of designing one's career) one needs the "destination as well as the path" (Oyserman and Lewis 2017) [11]. Materials such as the ones

presented in this paper show students the destination by using near-peer Japanese role models. Students can learn from them, explore their journeys. This is a powerful tool for developing a sense of agency, motivation, and possible self. Through the materials presented in this paper, students are able to develop metacognitive knowledge that help them to understand the destination and the path to reach long and short-term goals on their career journey.

This case study has shown how the MAPS model can be used along with research derived from actual cases in the context of international entrepreneurship to attempt to promote behaviour change in students as they develop their careers. It is hoped these ideas will encourage other educators and career design professionals to consider how their current programs relate to research, real-world cases, metacognition, agency, and possible selves.

REFERENCES

- [1] Yokoyama, K., & Birchley, S. L. *Transnational Entrepreneurship in South East Asia: Japanese Self-Initiated Expatriate Entrepreneurs*. Springer. 2020.
- [2] Frazier, L.D., Schwartz, B.L., Metcalf, J. "A.A. Author, The MAPS model of self-regulation: Integrating metacognition, agency and possible selves." *Metacognition and Learning* 2021.
- [3] Morita, A. The relationship between job hunting anxiety and information gathering: the influence of self-efficacy. *The Japanese Journal of Career Education* Volume 33 Issue 1 21-28. 2017.
- [4] Shibuya, Y. A study on the knowledge gained and skills acquired through internship and part-time work among undergraduates. *The Japanese Journal of Career Education* Volume 37, Issue 2, 55-66. 2019.
- [5] Borich, Gary D., and Martin L. Tombari. *Educational psychology: A contemporary approach*. Longman Publishing/Addison Wesley L, 1997.
- [6] Dunlosky, J, Michael L. Mueller, and Sarah K. Tauber. "The contribution of processing fluency (and beliefs) to people's judgments of learning." *Remembering*. Psychology Press, 70-88, 2014.
- [7] Efklides, A. Interactions of metacognition with motivation and affect in self-regulated learning: The MASRL model. *Educational psychologist* 46.1 6-25. 2011.
- [8] Meara, Naomi M., et al. "Possible selves: Applications for career counseling." *Journal of Career Assessment* 3.4: 259-277. 1995.
- [9] Oyserman, D. The essentialized self: Implications for motivation and self-regulation. *Journal of Consumer Psychology*, 29(2), 336–343. <https://doi.org/10.1002/jcpy.1093>. 2019
- [10] Gollwitzer, Peter M., and Paschal Sheeran. Implementation intentions and goal achievement: A meta - analysis of effects and processes. *Advances in Experimental Social Psychology* 38: 69-119. 2006.
- [11] Oyserman, D., & Lewis Jr., N. A. Seeing the destination AND the path: Using identity-based motivation to understand and reduce racial disparities in academic achievement. *Social Issues and Policy Review*, 11(1), 159–194. <https://doi.org/10.1111/sipr.12030>. 2017.