

Design Blueprint for an Online Blended Learning Course

Teach Female Asian Immigrants Mindset Strategies

on

How to Break the Bamboo Ceiling

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Abstract

This paper presents a design blueprint for an online blended learning course aimed at teaching female Asian immigrants' mindset strategies on how to break the bamboo ceiling to address the issue of inequality of imbalance of powers for female Asian immigrants in the workplace. The blueprint includes a needs assessment section that identifies the target population and the specific internal and external barriers they face in the workplace, a course analysis section that outlines the course objectives, learning outcomes, a brief introduction of the seven units with list of contents, a description of the learning environment that illustrates the most effective learning environment design which incorporates both synchronous and asynchronous components and a media selection section that explains the adoption of various multimedia resources and their cost to support the course content. In addition, the blueprint includes an implementation section that details the comprehensive rollout plan, an evaluation section that follows Kirkpatrick's Four Levels of Evaluation (2016) that describes the methods and metrics used to assess the effectiveness of the course, and a lesson analysis section that showcases one lesson in-depth within the course. Overall, this blueprint provides a comprehensive, theory-based, and evidence-based approach for creating a successful online blended learning course for female Asian immigrants seeking to break the bamboo ceiling in their personal life and their careers.

Needs Assessment

This course will be focused on the mindset strategies of how to break the bamboo ceiling for female Asian immigrants who are employed in U.S. corporations or strive to be self-employed. Its goal is to raise awareness, shift mindsets, and most importantly, guide individuals in setting personal goals and developing action plans to break through the barriers of the bamboo ceiling. The term "bamboo ceiling" is an adaptation of the term "glass ceiling," and it refers to the internal and external barriers that Asian professionals, particularly females, face in the workplace in order to advance their careers, gain leadership positions, and start their own businesses (Chang, 2021; Cole, 2008). Asian American professionals are least likely to move up the corporate ladder and are often overlooked to participate in diversity programs compared to their other marginalized counterparts due to the fact that Asian Americans are often seen as highly-educated individuals from a relatively higher socioeconomic status that exceeds the basic needs of financial stability (Harvard Business Review, 2018). For immigrants, intersectionality adds another layer to both internal and external barriers, such as low self-efficacy from their English language competency, self-perceived foreignness, self-presentation, social and political communication skills, discrimination, stereotyping, and microaggressions due to cultural, socioeconomic, and ethnic factors (Chen & Ren, 2013). That comes into the need for this course, which will focus on mindset strategies to battle the internal and external barriers of the bamboo ceiling to achieve the mission of "breaking the bamboo ceiling from within."

Analysis of the Current Learning Context

Currently, there is a paucity of either formal or informal learning of any form on this topic. Existing learning opportunities from non-formal settings, such as online webinars or free

college workshops, can help raise awareness, but may lack practical guidance on the "how". Similarly, in the corporate environment, training or employee development programs on this topic are so scarce because this topic has a monoracial focus, which can be a big stretch for organizations to go above and beyond after checking all the boxes for mandatory equity and diversity requirements. In addition, while formal learning opportunities teach the skills that potentially help break the bamboo ceiling, they are often not structured to pinpoint the bamboo ceiling theme. Classes such as ESL communications, interview strategies, and resume writing are available in public adult schools or local community colleges, where female immigrant students account for roughly half of enrollment. These courses teach learners the basic living skills of American culture as well as how to land entry-level jobs (Sheriff, 2003). But they are not systematically designed with clear objectives to help female Asian immigrants break the bamboo ceiling, and their mission stops at obtaining employment, leaving a gap for those who strive for career advancement. The issues involved with the bamboo ceiling have a macro scope of complex, intricate, and interconnected contributing factors that are systemic, which will not be resolved with this course from the root. However, learning solutions at this stage can help amend these inequity issues. That being said, this course will not be using the problem model to get to the deep root of the issues, but rather the innovation model with the organizational mission to fill the learning gaps addressed to empower and revolutionize the female Asian immigrant workforce. Given that there are few existing online learning programs or models for this course topic available, it further solidifies the idea that the needs assessment for this course will be following the innovation-based model (Smith & Ragan, 2005).

Analysis of the Learner

Analyzing learner characteristics is crucial in instructional design. It comes down to tailoring learning experiences to meet individual learners' characteristics so as to design the most engaging and effective learning experience for them to achieve the best learning outcomes. Failing to acknowledge learners' differences in their characteristics, such as demographic, physiological, cognitive, affective, and social characteristics, will result in an ineffective, unengaging, unpurposeful course design, leading to unsatisfactory learning outcomes (Smith & Ragan, 2005).

Demographic Characteristics

Learners of this course are first-generation Asian female immigrants aged 20–50 who are fluent in English and work for American companies, including those who reside outside of the United States but work for American companies remotely with stable Internet access. They come from a variety of socioeconomic, cultural, and linguistic backgrounds, with different ethnic heritages. They are English-as-a-second-language (ESL) speakers whose native languages are Chinese, Korean, Japanese, Hindi, Vietnamese, Filipino, Laotian, etc. About 50 percent came to the U.S. in their early adulthood. Social disparities challenge and disadvantage the other half of the population who came to the U.S. in their childhood and were raised in minority communities in the United States, such as Chinatown, Japantown, and other ethnic-centralized communities. Despite the differences, they all have one thing in common: they work in entry-level positions, feel stuck in their careers, and strive to advance their careers or pursue entrepreneurship while trying to blend into the U.S. work culture.

Physiological Characteristics

Learners who will enroll in this course could be physiologically challenged in many ways. Around 15-20% of them may be challenged by essential functioning or cognitive processing disabilities or health, physical or mental conditions that affect or limit one's ability to perform daily life tasks. Despite those challenges, learners who make the decision to enroll in the course will have the ability to work on the computer with or without the help of any self-assisted devices, such as a screen reader, or an assistive listening device, to perform on their technology tools, such as cellphones, tablets, and laptops.

Cognitive Characteristics

Identifying learners' cognitive abilities is the key to instructional design because cognitive ability determines how effectively a learner can attain the knowledge from instruction and further transfer the knowledge from learning that eventually brings meaningful changes to their application in the real world (Smith & Ragan, 2005). Cognitive characteristics can be implemented in learning design with the consideration of many influential factors, such as ability, prior knowledge, and value, as they can tremendously impact and shift the results in learning outcomes.

Ability. One's ability to learn involves how they interact and respond to the learning environment and experience with different emotions, cognitive processing capabilities, social skills, level of self-directedness, or needs for autonomy (Ambrose et al., 2010). All the different ranges of ability take part in the learning process that overall contributes back to one's developmental potentials. For the learners of this course, English language, social and communication skills are outstanding among other abilities as social skills and English language

ability were found to be two key determinants to influence the process in acculturation (Choi & Thomas, 2009).

Prior Knowledge. Learners bring their previous experience and knowledge gained in all aspects of their lives, including personal beliefs, values, expertise, and skills that can impact or impede how they filter or perceive information and acquire new knowledge (Ambrose et al., 2010). It is important to assess how well their prior knowledge is contributing to the new knowledge and predict those that may potentially stand in the way of constructing new schemas in learning. For the learners of this course, it is crucial to compare and contrast their cultural beliefs with American culture as one of the key components in assessing their prior knowledge. Especially for the beliefs that contradict each other. Identifying them in the learning process will be crucial to combating beliefs that caused the inner barriers of the bamboo ceiling. For example, different Asian cultures have different views on good leadership. They see a good leader as a quiet leader who is less likely to make innovative decisions, whereas in the United States, a good leader is a forward-thinker who stands out to speak for themselves without any reservation. In addition, Asian employees often have low self-review and hold higher standards for themselves than their white counterparts, which shy them away from the idea of taking leadership (Kim et al., 2021).

Value. One's lifespan development is shaped by many circular layers of domestic, social, and cultural influences. Through experiences throughout the developmental process, individuals gain beliefs, cultural norms, attitudes, and theoretical models that impact their decision-making in learning activities and their goals to be achieved through those activities (Eccle, 2009). That said, when it comes to each learning activity one encounters, the value or how much importance

one places on the experience or result of the experience influences their motivation in learning to a very large extent, whether the motivation is intrinsic or extrinsic. In most Asian cultures, women's success is less associated with professional aspirations or career success but more associated with success in domestic roles and household responsibilities (Stier, 1991).

Additionally, in both East and South Asian cultures, money is seen as the root of all evil. Being financially abundant is seen as being greedy with bad virtues (Merali, 2015). Having these beliefs may potentially constrain women in the status of maintaining low-salary jobs or prevent them from engaging in salary negotiations to match their real market value.

Social Characteristics

Social characteristics are also one of the major factors in the cultural nature of this course. Due to cultural influences and social political influences, learners' ideologies may be heavily influenced by Asian culture or values, such as Confucianism, which values collectivism, modesty, and suppresses one's individualism. Furthermore, females in many Asian cultures are frequently constrained by traditional standards and subjected to gender stereotypes and biases. Many women may be self-judgmental about their appearance and self-expression.

Potential Issues with Power, Equity, and Inclusion. Learners in the course are from marginalized and ethnic minority groups, and the majority of them are disadvantaged or oppressed by the intersectionality of their ethnicity, gender, socio-economic status, sexual orientation, disabilities, etc. With this in mind, the course will implement strategies to accommodate the diverse learner profile in its curriculum design.

Implications of the Learning Environment and Learner Profile for the Curriculum Design

To address learner characteristics in the course design, it is crucial to bridge the gaps between cultural differences and communication competencies, as well as support the process of acculturation. First, incorporate optional prerequisite courses, such as Basic Business English and U.S. social conventions. Second, teach the growth mindset to help learners overcome passive cultural learning to expedite their acculturation process. Third, overcoming doubts about one's own abilities is essential. Introduce "cultural capital" in the main lessons to help learners gain higher perceived self-efficacy as a non-native English speaker and view cultural heritage as an advantage to one's professional abilities in U.S. corporations.

Creating a mentorship program that is accompanied by a peer-support system is critical for this target audience, who has few opportunities to meet like-minded people or role models within their ingroups. Learning is contextualized and situated within engagement within social communities that involves thinking, communicating, and doing (McLoughlin & Oliver, 2000). Therefore, peer interaction, or social learning, will be a big component in the course design. Mentor follow-ups and accountability check-ins will be incorporated. Learners will also connect with and work with their peers throughout the program. They will be paired up with members of both cultural ingroups and outgroups in rotations to share commonalities as well as understand each other's cultural differences. Lastly, an online discussion board will be included in the learning management system (LMS) to support in-depth social connection.

Course Analysis

Analysis of the Course Learning Task

The purpose of this course is to teach female Asian immigrants how to battle the internal and external barriers of the bamboo ceiling with mindset strategies that focus on five main areas: improving self-efficacy by identifying and dispelling misbeliefs; recognizing one's own cultural heritage as assets and other strengths; embracing growth mindset and acculturation; coping with stereotypes and implicit biases; reconstructing new cultural identities and unlocking confident self-expression. At the end of this course, learners will be able to identify and self-assess their own internal and external barriers in their working space; then, select and implement mindset strategies from this course to develop measurable personal goals and detailed actionable plans; and finally, self-monitor their plan execution and track progress on their personal goals to break the bamboo ceiling that is hindering them from reaching their career goals. These mentioned learning objectives fall under both the *Cognitive Strategies* and *Attitudes* classified in Gagne's Five Learning Outcomes, as learners are expected to break disbeliefs and shift mindsets through the conceptual, procedural, and metacognitive knowledge gained from this course that further assists them in changing attitudes, influences their choices, and triggers new behaviors in the long run, which will eventually bring true results to achieve their career goals (Gagne, 1985; Krathwohl, 2002).

Course Task Analysis and Major Steps

Cognitive task analysis is a method to record the thought process of analyzing the implicit and explicit knowledge that is closely tied to task performance and course objectives. To optimize the effectiveness of the course design to achieve desired outcomes, a five-stage

cognitive task analysis process will be implemented for the course task analysis, which follows collecting preliminary knowledge, identifying knowledge representation, applying focused knowledge elicitation methods, analyzing and verifying data acquired, and formatting results for the intended application (Clark et al.,2008). Preliminary knowledge for this course is gathered from a variety of sources, such as academic literature, books, relevant training materials, interviews with subject matter experts (SMEs), free online webinars, informational videos, and so forth. In the initial stage of bootstrapping, relevant learning content was explored via Google search, relevant training materials, informational videos, and books. Then academic literature, such as research articles, was collected through Google scholar. Following this step, interviews were conducted with members of the potential learner group to elicit knowledge based on their personal needs. Lastly, two SMEs from both the academic and professional space were invited to examine and select the preliminary content gathered from previous steps to create course goals as well as identifying tasks required following a learning hierarchy analysis, a top-down technique to define the learning objectives (Clark et al., 2008). The major steps as a result of this analysis are listed as follows.

1. Self-evaluate and make a list of current personal internal and external barriers to achieve a professional goal.
2. Self-identify strengths and make a list of personal assets with a continuously growing cultural identity.
3. Make a list of key strategies for powerful communication and confident self-expression.

4. List key strategies to maximize potential and overcome resistance in the workplace.
5. List key strategies to activate resources in the workplace.
6. Construct a personal periodic strategy implementation plan with detailed action items.
7. Execute the personal strategy implementation plan with self-monitoring.
8. Evaluate your success in achieving the professional goal.

Course Learning Goals

Course learning goals are statements describing the intended learning objectives that are aligned with the overall purpose of the course. Course learning goals clearly state which specific knowledge, skills, or desired behaviors are expected of learners at the conclusion of the instruction (Smith & Ragan, 2005). Learners will demonstrate the following behaviors upon course completion:

Given each new professional opportunity, learners will:

1. Self-evaluate and make a list of current personal internal and external barriers to achieve a professional goal.
2. Self-identify strengths and make a list of personal assets with a continuously growing cultural identity.
3. Make a list of key strategies for powerful communication and confident self-expression.
4. List key strategies to maximize potential and overcome resistance in the workplace.

5. List key strategies to activate resources in the workplace.
6. Construct a personal periodic strategy implementation plan with detailed action items.
7. Execute the personal strategy implementation plan with self-monitoring.
8. Evaluate your success in achieving the professional goal.

Course Learning Outcomes

Course design effectiveness is optimized when learning outcomes are analyzed and written based on a knowledge taxonomy framework to determine what type of knowledge or cognitive process learners will perform from the instruction of the course to achieve learning goals. Therefore, the learning outcomes for this course will be assessed following Gagne's Five Learning Outcomes: declarative knowledge, intellectual skills, cognitive strategies, attitudes, and psychomotor skills (Gagne, 1985; Krathwohl, 2002). Below is a knowledge type analysis for the course for each learning goal.

Given each new professional opportunity with a perceived bamboo ceiling, learners will:

1. Self-evaluate and make a list of current personal internal and external barriers to achieve a professional goal.
 - a. Declarative
 - i. Definition of internal barriers; external barriers;
 - ii. Type of professional goals and personal interests;
 - b. Intellectual skills
 - i. Self-evaluate personal barriers;
 - ii. Identify personal goals and personal interests;

2. Self-identify strengths and make a list of personal assets with a continuously growing cultural identity.
 - a. Declarative
 - i. Definition of self-identity;
 - ii. Definition of growth mindset and acculturation;
 - b. Intellectual skills
 - i. Self-identify strengths and personal assets;
 - ii. Actively engage in acculturation;
 - c. Attitudes
 - i. Mindset shifts on cultural self-identity;
3. Make a list of key strategies for powerful communication and confident self-expression.
 - a. Declarative
 - i. Strategies for powerful communication and confident self-expression;
 - b. Intellectual skills
 - i. Identify mindset shifts that helps eliminate personal barriers;
 - ii. Make a list of key strategies for powerful communication and self-expression
 - c. Attitudes
 - i. Develop positive attitudes on self-presentation and self-expression;
 - ii. Develop self-efficacy

4. List key strategies to maximize potential and overcome resistance in the workplace.
 - a. Declarative
 - i. Strategies for maximizing potential and overcoming resistance;
 - b. Intellectual skills
 - i. Identify mindset shifts that helps maximize potential and overcome resistance;
5. List key strategies to activate resources in the workplace.
 - a. Declarative
 - i. Strategies for activating resources;
 - b. Intellectual skills
 - i. Identify mindset shifts that helps activate resources in the workplace;
 - c. Attitudes
 - i. Develop positive attitudes in activating resources;
6. Construct a personal periodic strategy implementation plan with detailed action items.
 - a. Declarative
 - i. Steps to create effective personal strategy implementation plan;
 - ii. Recall knowledge on how to set SMART goals;
 - b. Intellectual skills

- i. Construct a personal strategy implementation plan with periodic goals;
7. Execute the personal strategy implementation plan with self-monitoring.
 - a. Intellectual skills
 - i. Execute personal strategy implementation plan;
 - b. Cognitive strategies
 - i. Self-monitor progress on the personal strategy implementation plan;
8. Evaluate your success in achieving the professional goal.
 - a. Declarative
 - i. Recall steps on how to effectively self-evaluate and self-monitor;
 - b. Cognitive strategies
 - i. Self-evaluate achievement and challenges;
 - ii. Self-redirect in the execution of the personal strategy implementation plan;

As indicated by the different types of learning outcomes for each learning goal above, *cognitive strategies* and *attitudes* are the main knowledge components for this course. Attitudes are involved in each learning goal as it is the overall objective targeted for this course. Declarative takes a small composition but is equally important as it sets the knowledge foundation for building up both cognitive strategies and attitudes. *Declarative knowledge* such as information involving terminology, lists, or organized information is covered in the course to help build the learner's awareness of breaking the bamboo ceiling, such as introducing the

meaning of self-efficacy and acculturation, strategies, and research evidence on the effectiveness of mindset shifts to break the internal barriers of the bamboo ceiling. This type of knowledge will be introduced through interactive e-learning modules, accompanied by articles, both written and live discussions. Cognitive strategies take up the largest percentage of this course as it focuses on the application process of strategy implementation, through which learners have plenty of opportunities for self-assessment, self-reflection, and self-monitoring. For example, the major project learners need to complete is to develop and execute a personal strategy implementation plan with the support of mentors, peers, and accountability advisors. This course will also touch upon *Intellectual Skills* as, in the creation process of the strategy implementation plan, learners will encounter small tasks to evaluate and analyze their personal contexts and apply the strategies they have learnt to their real-world environment. *Attitudes* are one of the main objectives of the course. Learners will be given convincing research evidence and inspirational mentor speeches to acknowledge the value of mindset shifts and the power of breaking the bamboo ceiling. At the end of this course, learners are expected to be motivated, inspired, and determined to continue execution of the strategy implementation plan.

Overview of the Units

The units of the course are mapped out following a learning-related structure through which learners gain different types of knowledge gradually, from knowing to applying, from simple to complex, and from independent knowledge type to integrated knowledge and skills (Smith & Ragan, 2005). This structure fosters changes in attitudes from building a solid declarative knowledge foundation, further promotes knowledge transfer, and finally provides support and follow-ups throughout application.

List of Units, Learning Objectives, and Learning Goals Achieved

Unit 1: Identify Your Bamboo Barriers

1. Given a new professional opportunity, the learner can self-evaluate and make a list of current personal internal and external barriers to achieve a professional goal. (Learning Goal 1)
 - a. Declarative
 - i. Given a list of terms, the learner can state the definition of different types of internal barriers and external barriers; (A)
 - ii. Given guided prompts, the learner can paraphrase the definition of professional goals and personal interests; (A)
 - b. Intellectual skills
 - i. Given a guided worksheet, the learner can self-evaluate personal barriers in the workplace and daily life; (S)
 - ii. Given an learner work sample, the learner can follow and identify personal goals and personal interests; (S)

Unit 2: Reconstruct Your Cultural Identity

2. Given a new professional opportunity, the learner can self-identify strengths and make a list of personal assets with a continuously growing cultural identity. (Learning Goal 2)
 - a. Declarative

- i. Given pertinent information, the learner can paraphrase the definition of self-identity; (A)
- ii. Given pertinent information, the learner can paraphrase the definitions of growth mindset and acculturation; (A)
- b. Intellectual skills
 - i. Given sufficient real-world examples, learners can self-identify personal strengths and personal assets on the worksheet; (S)
 - ii. Given the list of suggested activities for acculturation, learners can apply 1-2 activities in personal contexts; (S)
- c. Attitudes
 - i. Given research evidence, learner show gaining a growth mindset on personal cultural self-identity through live discussions; (S)

Unit 3: Powerful Communication and Confident Self-Expression

3. Given a new professional opportunity, the learner can make a list of key strategies for powerful communication and confident self-expression. (Learning Goal 3)

- a. Declarative
 - i. Given pertinent information, the learner can recall strategies for powerful communication and confident self-expression; (A)
 - ii. Given pertinent information, the learner can recall the values of positive self-presentation and self-expression; (A)
- b. Intellectual skills

- i. Given a list of key strategies, the learner can identify mindset shifts that helps eliminate personal barriers; (S)
 - ii. Given a list of key strategies, the learner can create a list of personal strategies for powerful communication and self-expression; (S)
- c. Attitudes
- i. Given sufficient research evidence and pertinent information, the learner can develop positive attitudes on self-presentation and self-expression; (S)
 - ii. Given sufficient research evidence and pertinent information, the learner can develop self-efficacy; (A)

Unit 4: Maximize Your Potential

4. Given a new professional opportunity, the learner can list key strategies to maximize potential and overcome resistance in the workplace. (Learning Goal 4)
- a. Declarative
 - i. Given a list of questions, learner can type out strategies for maximizing potential and overcoming resistance; (A)
 - b. Intellectual skills
 - i. Given real-world examples, the learner can identify mindset shifts that helps maximize potential and overcome resistance; (S)

Unit 5: Activate Your Resources

5. Given a new professional opportunity, the learner can list key strategies to activate resources in the workplace. (Learning Goal 5)

- a. Declarative
 - i. Given with discussion prompt, the learner can initiate discussions based on the key strategies for activating resources; (S)
- b. Intellectual skills
 - i. Given with real-world contexts, the learner can identify mindset shifts that helps activate resources in the workplace; (S)
- c. Attitudes
 - i. Given with writing prompt, the learner shows strong evidence of developing positive attitudes in activating resources; (A)

Unit 6: Create Personal Strategy Implementation Plan

6. Given a new professional opportunity, the learner can construct a personal strategy implementation plan with detailed action items. (Learning Goal 6)

- a. Declarative
 - i. Given with step-by-step handout, the learner can recall steps to create effective personal strategy implementation plan; (A)
 - ii. Given with pertinent information, the learner can type out the key words for SMART goals; (A)

- b. Intellectual skills
 - i. Given with structured worksheet with examples, the learner can construct a personal strategy implementation plan with periodic goals; (S)

Unit 7: Execution and Self-Monitoring

7. Given a new professional opportunity, the learners can execute the personal strategy plan and evaluate personal success in achieving the professional goal. (Learning Goal 7 & 8)

- a. Declarative
 - i. Given with step-by-step instructions, the learner can record steps on how to effectively self-evaluate and self-monitor; (A)
- b. Intellectual skills
 - i. Given with step-by-step instruction and mentor's guidance, the learner can execute personal strategy implementation plan; (A)
- c. Cognitive strategies
 - i. Given with handout with detailed directions, the learner can self-monitor progress on the personal strategy implementation plan; (A)
 - ii. Given with handout with detailed directions, the learner can self-evaluate achievement and challenges; (A)

- iii. Given with handout with detailed directions, instructor's support, and feedback, and the learner can self-redirect in the execution of the personal strategy implementation plan; (S)

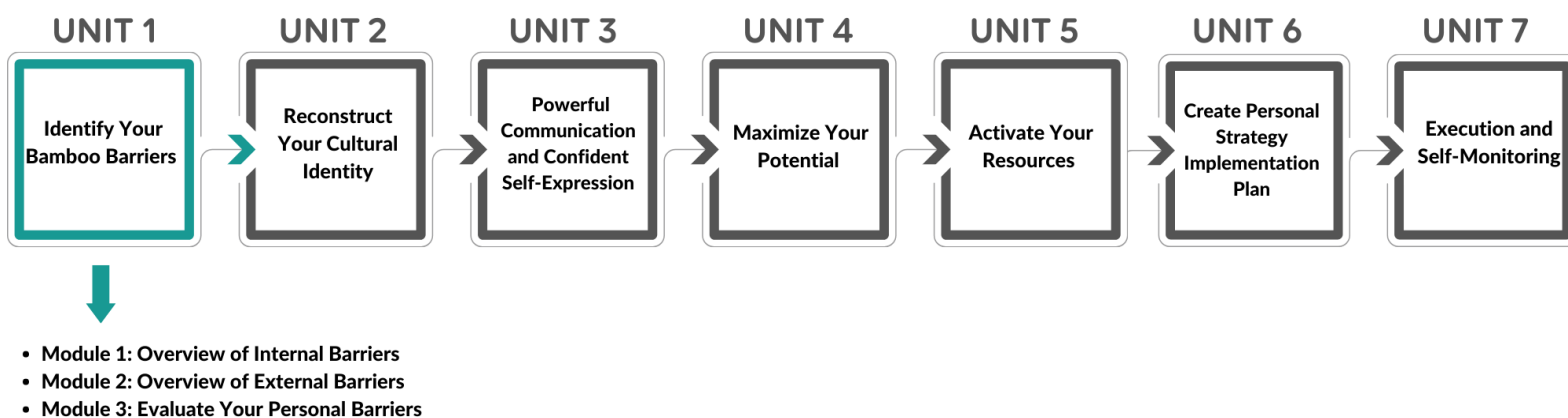
For the purpose of this instructional design blueprint, the learning goals for Unit 1 will be fully demonstrated at the end of this document.

Visual Overview of the Course Units

Figure 1 shown below, is a visual overview of how the units are mapped out in the course. The scope and sequence for Unit 1 will be further highlighted in the following section as a snapshot example of how all units of the course are designed in alignment with learning goals. A detailed design document for this unit will also be included in this paper.

Figure 1

Overview of the Units



Course Scope and Sequence Table

The scope and sequence of the course are shown in Table 1 below. The subsequent sections of this paper, which record and explain the design and development phases of the course, will follow this scope and sequence to make sure that learning goals are addressed in each unit from four instructional levels: Preview, Introduce, Reinforce, and Mastery, as indicated in the table.

Table 1

Course Scope and Sequence (To see full resolution image follow the link [Scope and Sequence](#))

Learning Goals	Unit 1: Identify Your Bamboo Barriers	Unit 2: Reconstruct Your Cultural Identity	Unit 3: Powerful Communication and Confident Self-Expression	Unit 4: Maximize Your Potential	Unit 5: Activate Your Resources	Unit 6: Create Personal Strategy Implementation Plan	Unit 7: Execution and Self-Monitoring
The learner can self-evaluate and make a list of current personal internal and external barriers to achieve a professional goal.	I	R	R	R	R	M	
The learner can self-identify strengths and make a list of personal assets with a continuously growing cultural identity.	P	I	R	R	R	R	M
The learner can make a list of key strategies for powerful communication and confident self-expression.	P		I	R	R	R	M
The learner can list key strategies to maximize potential and overcome resistance in the workplace.	P			I	R	R	M
The learner can list key strategies to activate resources in the workplace.	P				I	R	M
The learner can construct a personal strategy implementation plan with detailed action items.	I	R	R	R	R	R	M

P = Preview; I = Introduce; R = Reinforce; M = Mastery

Description of the Learning Environment

The learning environment of this course is online blended learning with synchronous and asynchronous components. In the initial phase, the course will be rolled out in a formal learning environment with closed access. The course will be introduced to students who are enrolled in public adult continuing education programs as well as community colleges. This will be a free resource for those who want supplementary learning to prepare for their entry-level careers. In the second and third phases, as the course is improved with multiple feedback loops, it will transition to non-formal learning environments with open access. The course will offer certification options for those who have completed all components of the course and passed evaluation. In addition, the course will be rolled out online and provide free access to the general public audience globally who have Internet access.

All course materials and learning activities will be hosted by a learning management system (LMS). Each course unit will be composed of digestible modules in various formats, such as recorded lectures, video or animations, interactive e-learning with knowledge checks, peer discussion boards, resource folders with checklists, worksheets, handouts, links to online resources, etc. This will give learners various forms of locus control as they self-pace the course on their own, as well as the support and scaffolding they need in self-directed learning.

In the process of self-directed learning, learners will get community support from the learning community. As they advance in the course modules, they will be prompted to participate in peer discussions on the discussion, as well as live synchronous learning sessions, which include peer-hosted self-learning sessions and mentor-led whole-group learning sessions. There is also additional synchronous support to ensure learning is on track, motivation is maintained,

and feedback is given in a timely manner, such as the accountability advisor check-in sessions and mentor one-on-one meetings.

Overall, the design of the learning environment for this course takes the approach of blending different types of learning environments, such as synchronous and asynchronous learning, self-directed learning and community-supported learning, non-formal and formal, so as to achieve the most effectiveness in learning outcomes, which provides learners flexibility and meets the needs of different learning characteristics.

Organizational Stakeholders

The key stakeholders of this course include the admins from adult schools and community colleges, as well as the leadership teams within non-profit organizations such as the Asian Immigrant Women's Advocates (AIWA) and the Immigration Institute of the Bay Area (IIBA). These leadership teams will be the decision-makers for all phases of the rollout of the course in their organizations and ensure accessibility and learning objectives for their learners. Additionally, the mentors, accountability advisors, and LMS admins of this course, who are also subject matter experts (SMEs), are the stakeholders who take on the responsibilities of developing, maintaining, evaluating, and analyzing to ensure the regular operation, continuous improvement, and long-term sustainability of the course.

Typologies

A learning environment is not simply a physical environment and more than just a classroom. It is a physical, psychological, and emotional space in which an individual pursues knowledge. The learning environment typologies of the official roll-out/final phase of this course

include the following: closed, adaptive, formal, virtual, blended of synchronous and asynchronous, self-directed with community support and optional collaborations.

Design Elements that Promote Learning

The design elements for the learning environment of this course have taken equity and access into consideration from different perspectives, such as learners' accessibility with technology devices or transportation to the course learning, time and commitment, and learning characteristics that can be affected by personal and external factors.

Closed Learning Environment

This course has a closed learning environment with a small cohort model. Enrolling in the course is completely voluntary based on learning needs. Once learners enroll, they develop a sense of commitment through the camaraderie and interconnected support system built within the cohort community. The course design also gives limited time of access to synchronous learning with a small cohort size that is less than 15 members for increasing participation value and building a stronger learning community. The small-sized cohort ensures that mentors and accountability advisors can distribute enough focus on each individual learner and their ever-changing learning characteristics.

Adaptive Learning Environment

In an adaptive learning environment, it offers various features that accommodate different characteristics of learners. This course evaluates learning design regularly and implements new ways of learning to provide a flexible and diversified learning experience. A learner in-take survey and accountability advisor and mentor one-on-one sessions are used to collect data on various learner characteristics before and during the course. Learners' needs can be heard through

these opportunities with either verbal or written feedback (Oliveira et al, 2011). During the live sessions with the accountability advisor, learners and advisors can work on the individual learning plan together and ensure the preferred methods of learning activities and ways to collaborate with peers are individually customized.

Formal Learning Environment

To help learners better achieve their ultimate learning objectives, this course is designed to be a formal learning environment with summative evaluations. Upon completion of the end-of-course evaluation, multiple certifications will be issued based on performance in the form of virtual badges, which can be displayed on learners' LinkedIn profile pages. This can add value as learners look to advance in their career through professional networks.

Virtual Learning Environment

This course was designed to be delivered virtually because the majority of the target audience of this course are female working professionals who are trying to overcome barriers in life and the workplace. Most of them do not have the access or bandwidth to travel to the physical location for the learning events, nor can they engage in learning with a rigid schedule. Additionally, due to the sensitive nature of the topics that will be covered and discussed in the course, some learners may need a private space to share their personal story. In the virtual space, learners can make use of the anonymous discussion board to address issues that may not be easy to talk about during a live session or face-to-face conversation. Learners are also given the option to join the virtual call session without having to turn the camera on.

Blended Learning Environment

The adaptive nature of the learning environment decides that the course is going for a blended model that includes both synchronous and asynchronous components. In a synchronous learning environment, learning happens in real time, whereas in an asynchronous learning environment, learners have flexibility in selecting when and where the learning happens. However, a pure asynchronous learning environment will lead to less motivation or engagement because learners tend to feel isolated and without the support of a sense of community (Slavin, 2014). Thus, synchronous live learning sessions are crucial for learners to build a stronger learning community and develop deeper relationships within their cohorts and with mentors so as to increase engagement and commitment to learning.

Self-directed and Community-supported Learning Environment

This course is self-initiated, self-directed, and self-managed. From enrollment to completion, the learners take control of their own pace throughout. However, support and intervention are always provided, such as peer support, accountability advisor check-ins, and mentor one-on-one meetings. These external support are voluntary but effective in creating high-level engagement through building communities (Obinger, 2006).

Constraints and Limitations

There is never a perfect design for learning environments. The design of this course environment has aimed to provide flexibility to learners with various characteristics to the greatest extent, maximize support and effectiveness of the learning community, as well as ensure equity and access in the course design. However, there is a grey area for learners to have access, locus control, and on-going motivation and engagement at the same time with the voluntariness

and self-directed learning nature of this course. In most course modules, learners are instructed and promoted to finish a task independently or collaboratively. But failing to accomplish these tasks would not have any consequences. Accountability advisors will reach out. But what the accountability advisors can do is limited if the learner does not take accountability themselves. To mitigate the potential for disengagement, it is crucial for accountability advisors to help learners successfully establish customized, clear, and achievable goals for each phase of the course, as well as provide a structured roadmap, complimentary learning resources, and task breakdown to make sure personal challenges are minimized.

To ensure learners have on-going participation and motivation, this course has been designed to put learners in compact cohort groups. This component has limitations as well. If a learner is not being consistent with the cohort interactions while others are engaged and committed, the learner may feel left out. The cohort group will not serve the purpose of improving the learning experience. On the contrary, it makes the learner feel a lack of belongingness. Thus, it is important to ensure the success of each kickstart of the cohort community building. At each first cohort meeting, agreements and commitments need to be made collaboratively for its uniqueness. In addition, accountability partnerships need to be built within the whole group to strengthen the level of persistence and commitment.

Media Selection

Media selection is a crucial part of the instructional design process. It is the process of selecting the type, length of use, timing, and the integration of multiple media that are applied in instructions (Clark et al., 2010). In this paper, media is being referred to as an instrument that serves as a vehicle for the delivery of learning instructions (Clark, 1994). The process of media

selection for this course has taken two main factors into consideration: fostering effective cognitive processing and promoting equity and access. In the following sections, the media selection process will be described in detail.

Media Versus Instructional Methods

Media is a vehicle that supports instructional methods and delivers learning content (Clark, 1994). Media can be anything that facilitates the learning process, such as multimedia learning materials, technology tools, instructors, and physical learning spaces. Media does not cause learning; instead, instructional methods do (Clark et al., 2009). Thus, instructional content is thoughtfully designed, structured, and paced following Merrill's Five Principles for instructional methods, which provide learners adequate opportunities to observe a demonstration, apply new knowledge, undertake real-world tasks, activate existing knowledge, and integrate new knowledge into their world (Clark et al., 2009). Self-pacing through each learning module through the learning management system (LMS), learners are directed to solve realistic problems from their daily personal contexts with customized guidance, scaffoldings, and relatable real-world examples and tasks.

General Instructional Platform Selection in Terms of Affordances

There are three aspects to consider in a comprehensive media selection process in terms of affordances: the use of media, media attributes, and instructional methods (Clark et al., 2010). The media selected to deliver the course will be evaluated using the same criteria. The main media selected for the delivery of the course includes a learning management system (LMS), Eduflow, where all the instructional content including e-learning materials, instructional activities, and resources are hosted and organized. As stated, the benefits of using a LMS are that

various forms of content, learning events, and instructions can be supported, well-managed, and organized in one big ecosystem. Each lesson in the course is composed of e-learning modules in the form of interactive clickable videos, animated explainers, and live presentations with relevant prior knowledge, real-world analogies, and examples from an experienced individual or expert. Learners can connect with peers, reach out to instructors, participate in group discussions, have private chats, join live sessions, and customize their own learning plans in the Eduflow LMS. That said, the attributes of Eduflow give learners locus control to a large extent and allows opportunities to foster learning communities and collaborative learning environments. On the backend, the LMS admins and instructors can also gather analytical data from learning activities and track the progress of learning for individuals.

Access

With the implementation of the LMS, there is no limit to how many learners can be hosted at the same time. Accessing the course merely requires Internet access and a technological device, just as learning content is hosted and shared on the public web. There is also no restriction on location or time. Learners can choose when and where to log on to the course and start their learning. Thus, these courses can reach global audiences that are in different time zones. The LMS also provides accessibility support features for learners with different needs, such as a closed caption option for the course videos, alt-tags for visuals for learners who use screen readers, and subtitles in multiple languages for those who are emerging English learners.

Consistency

All the instructional content is organized in a consistent manner to help reduce cognitive overload and any distractions or confusions a learner may have about the course workflow (Maxwell & Evans, 2002). Each course module is structured the same way, with four components: 1) introduction to the concept; 2) examples; 3) knowledge check or interactive activities; 4) end-of-module task or assignment. For each course module, terminology will be introduced, then examples will be given for learners to comprehend the concepts; following the conceptual knowledge, learners will be prompted to complete a knowledge check or interactive activities; and lastly, learners will be given instructions with work examples to finish an assignment. At the end of each unit, learners will be given the option to meet with an accountability advisor to check in on the learning process. Prior to a new unit, the learner will check in with the mentor during the one-on-one meeting to sign off on previous tasks and get feedback and instructions on how to proceed. Instructions for the workflow are given prior to its implementation and are reinforced with each accountability advisor check-in; therefore, learners are clear about what is expected of them every step of the way.

Cost

The cost of delivery for this course is divided into two primary categories: technology tool subscriptions and human resources. Annual subscriptions are needed for the LMS and technology tools such as Zoom for virtual sessions. Human resource costs are divided among stakeholders, who include the course content developer and course operation personnel such as qualified mentors, LMS administrators, accountability advisors, and guest speakers. These costs are recurring to ensure the sustainability of the course. All course materials are available in

electronic format and are copyrighted. Google Drive, which is a free resource, will be used to store all the course materials prior to their rollout in the LMS. Other tools from the Google Suite will also be used to support instruction and learning. Due to the virtual nature of this course, the cost is easy to manage, as costs for physical space or printed materials are avoided. This benefits individual learners, and the only expenses for them are access to the Internet and technological devices. Learners who access the course through non-profit organizations such as local public adult schools can enroll in the course and use the technology devices provided at no cost. In short, this media selection provides high values and benefits in course delivery output while keeping costs to a minimum for both stakeholders and learners.

Specific Instructional Platform Selection in Terms of Restrictions

There is no absolutely perfect medium for instruction. With the optimization of the media selection process, there are limitations. For example, it might take some ramp-up time for learners to get accustomed to the use of the platform. Learners who prefer traditional learning environments that do not necessitate the use of technology or online platforms may require more time to become acquainted with a learning management system. Due to this limitation, an orientation session is designed to be placed prior to the course to prepare learners for a better user experience with the learning management system and the overall workflow of going through the course. Overall, using a LMS instead of other similar online alternatives, such as social media platforms, learning forums, or public websites, might cause some usability challenges for some as it takes time to navigate. But with timely technology instruction and support, those challenges can be minimized, and its strengths and large affordances can bring out the most of learners' learning experiences.

Conceptual Authenticity

The course design has a large focus on connecting real-world tasks with the course progress. Learners will be guided to identify the problems they want to tackle and work through solving these challenges with the strategies given in the course. A task roadmap with a breakdown of action items will be provided as supporting materials. Learners will work with their mentors to customize the roadmap and execute the action items at their own pace. Having said that, while the media selection does not directly provide an authentic task environment, it does provide opportunities for learners to problem-solve in real-world situations with adequate instructional support from the course materials or mentors. Additionally, during the instructional content selection process, authentic examples, life stories, and real-world experiences are largely implemented in each course module and learning task as scenarios, student work examples, mentor stories, and expert stories. Thus, media in the learning environment allows learners to refer to real-world application knowledge while also assisting them in applying new learning in their authentic personal contexts.

Immediate Feedback

Through the implementation of the LMS, accompanied by the virtual conference tool, Zoom, immediate and timely feedback can be provided to learners in both asynchronous and synchronous learning. Two types of feedback can be incorporated through the LMS. The first type is system-automated feedback. A grading rubric was preloaded to the interactive activities in the e-learning module by instructors or course administrators. For example, based on the learner's selections for each knowledge check question or the overall performance, immediate feedback will be generated to inform the learner of their accuracy, levels of performance, or if

they need to restart this module. The other type is instructor-generated feedback. Whenever learners submit their responses to any open-ended questions for end-of-module assignments, instructors can review their responses and enter written feedback or recorded verbal feedback in audio form for learners to receive based on their preferences, which was one of the features embedded in the LMS. Virtual calls with mentors and accountability advisors through Zoom are additional mediums to communicate feedback. Extensive, detailed, and thorough feedback can be communicated to learners as if it were given in person using Zoom's screen-sharing feature.

Special Sensory Requirements

This course focuses on teaching mindset shift strategies and how to take further action steps to implement those strategies. Due to the sensitive nature of the course topics, the course content can be emotionally heavy for learners to discuss and dive into mentally; thus, visuals and auditory-rich content are implemented throughout the course to lighten the mood, such as animations, soap opera-style scenario videos, and virtual character pop ups in the LMS. Because no hands-on technical skills are required in the course learning objectives, nor are there authentic tasks that could potentially expose learners to risking their personal safety, based on the cost-benefit ratio, augmented reality (AR) or virtual reality (VR) implementation is not the best media choice at this time. Table 2 below shows the key considerations described in the previous sections for media selection based on conceptual authenticity, immediate feedback, and special sensory requirements in more detail.

Table 2

Key Considerations for Media Selection

Key Consideration	Media Considerations
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Conceptual Authenticity	<ul style="list-style-type: none"> ● Course roadmap with real-world tasks ● Instructional materials with real-world examples from mentors, experts, and students embedded.
Immediate Feedback	<ul style="list-style-type: none"> ● E-learning module knowledge check result ● Instructor written feedback from the LMS ● Instructor verbal feedback from the LMS ● In-person feedback from virtual calls through Zoom
Special Sensory Requirements	<ul style="list-style-type: none"> ● Animations (as explainer videos) ● Soap opera style scenario videos ● Virtual character pop ups in the LMS

Client Preferences or Specific Conditions of the Learning Environment

There are two main groups of clients that influence decisions on the media selection: nonprofit organization leaders and female Asian immigrants, who are the targeted learners of this course. How the two groups of stakeholders influence the decision-making process will be discussed. Firstly, as mentioned in the assessment and evaluation section of this paper, the course will be offered in nonprofit organizations such as public adult schools and community colleges. Under the impact of COVID-19, all local adult schools and community colleges have offered virtual class options. Zoom, one of many virtual conference tools, has been implemented by the majority of the nonprofit organizations that will be implementing this course. Thus, Zoom is adopted instead of Google Meet for consistency and user familiarity as a technology tool for whole-group and mentor virtual calls based on the decision of nonprofit organization leaders.

The targeted learner groups for this course are female Asian immigrants who reside globally with various cultural and professional backgrounds. They are the second group of stakeholders that will influence decisions on media selection. To ensure all learners receive timely feedback, occasionally work synchronously, and communicate effectively in this blended learning environment from different time zones, a LMS is beneficial for both learners and

instructors to track any learning events or activities, as each activity on the LMS will append time and date records and an activity log into the LMS. Individual learners can also open their personal LMS management page to check the latest feedback they received from mentors, course progress, assignment grades, responses from peers in the discussion forum, and live session schedules. In short, to accommodate flexible scheduling and synchronous learning and sharing for the learning community, a LMS is the most suitable and effective medium compared to similar alternatives, such as a learning forum. Edulow is one of the most powerful, simple, yet intuitive LMS that is free to use. Compared to similar alternatives, it also supports more multimedia formats. To ensure accessibility for a large global audience with different Internet capacities, Eduflow was chosen due to its access stability and zero loading time with massive online data.

Specific Media Choices

To ensure accessibility and that the needs of a diverse population are met, the media selection process for this course has focused on the three additional crucial factors in addition to considerations discussed in the main three discussed above: 1) technology access, 2) accommodations for different learning needs, and 3) diverse representation in the instructional materials. The media selected to address these three factors are authentic real-world examples, Eduflow learning management system, Zoom, and character videos. The benefits of these media choices along with their purposes are illustrated in Table 3 below.

Table 3

Media Choices

Media	Purpose	Benefits
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Authentic real-world examples	<ul style="list-style-type: none"> ● Modeling strategies that learners need to master 	<ul style="list-style-type: none"> ● Diversity representation ● Increase value and motivation through credible and authentic examples ● Assist in real-world application
Eduflow - Learning Management System	<ul style="list-style-type: none"> ● Host all instructional materials, learning activities, and keep track of learner data. 	<ul style="list-style-type: none"> ● Support self-directed learning and learner locus control ● Provide learning analytics ● Allow various formats of instructional content and activities to meet different learner characteristics ● Provide platform for engaging and supportive learning community
Zoom	<ul style="list-style-type: none"> ● Host virtual calls 	<ul style="list-style-type: none"> ● Provide more opportunities for social interactions in asynchronous learning environment ● Provide in-person and effective feedback ● Build in-depth personal relationship among peers and with mentors ● Provide support and increase retention with accountability check-ins and mentorship ● Accessible for global audience
Character videos	<ul style="list-style-type: none"> ● Deliver engaging instructional content 	<ul style="list-style-type: none"> ● Make instructional content more engaging and fun to draw interests ● Diversity representations ● Apply universal learning design components to accommodate different learning needs

Implementation of the Course

Implementation Description Introduction

The course will be delivered in various learning formats with both synchronous and asynchronous components, including e-learning modules, recorded videos, live webinars, guide worksheets, and interactive online community activities, among others. Eduflow, a learning management system (LMS) platform, will host all the course content. In Phase 1, this course will be piloted with small cohort groups of 8 - 10 learners from my personal social networks in the professional space who are from the female Asian immigrant community. During live sessions or in the community forum, formative feedback will be collected. In addition, surveys and interviews will be conducted among the pilot groups to gather initial feedback. In Phase 2, this course will be promoted in local public adult schools and community colleges. Surveys, in combination with interviews, will become a continuous and regular practice within each three-month cohort learning cycle. In the meantime, feedback and analysis of results will be continuously modified and enhanced since their official launch in this phase. In addition, a summative evaluation will be established that requires gathering learning artifacts. At the beginning of the course, learners will follow the step-by-step instructions to set their personal goals. They will be instructed to write out their learning objectives in their own words, as well as a list of goals with concrete details of what they expect to accomplish in three months, six months, a year, and three years with the knowledge from the course. This summative evaluation will be reviewed and monitored in accordance with their goals in the same time intervals mentioned. Once the course starts to scale up, it can be promoted through social media platforms or through non-profit organizations, such as the Asian Immigrant Women Advocates (AIWA)

and the Immigration Institute of the Bay Area (IIBA). Throughout each phase of the rollout, the assessment and evaluation process will follow the same routine of regular formative check-ins, surveys, end-of-the-course interviews, and pre and post summative assessments.

Evaluation of the Course

Course Purpose, Need and Outcomes

The purpose of this course is to provide mindset strategies to help female Asian immigrants battle their internal barriers and break the bamboo ceiling so they can achieve their career goals. For female Asian immigrants, not only do they face the bamboo ceiling that regular Asian Americans experience, the intersectionality of being female and immigrant also adds another layer with many hurdles, such as low self-perceived competence based on their English language competency, self-perceived foreignness, self-presentation, and social and political communication skills (Chen & Ren, 2013). The goal is to empower female Asian immigrants who are oppressed as a marginalized group and have reached a bottleneck in their professional life. At the end of this course, learners are expected to recognize cultural influences on shaping their self-efficacy, identify personal barriers, self-reflect on stereotypical thinking and biases, and map out measurable action plans with mindset strategies to overcome the internal barriers of the bamboo ceiling to achieve their career goals.

Evaluation Framework

The evaluation framework adopted for this course will follow Kirkpatrick's Four Levels of Evaluation, the New World Model (Kirkpatrick & Kirkpatrick, 2016). Starting from *Level 4 Results*, evaluation will track progress of application of knowledge and the impact of learning at

and after the completion of the course at different time intervals of three months, six months, a year, and three years, respectively, with the instrument of course completion interviews and follow-up surveys. For *Level 3 Behaviors*, formative assessment data will be collected through regular check-ins with the mentor and accountability advisor. Summative data will be gathered from the guided worksheet activity from the LMS. Similarly, *Level 2 Learning* data will also be gathered through informal check-ins, such as casual conversations during the whole group live sessions, mentor and accountability adviser video calls, or discussion from the community forum. Summative evaluation will be incorporated into each learning module as quizizz and open-ended questions and reflections. Lastly, *Level 1 Reaction* can be evaluated through all the previously mentioned instruments for Level, 2, 3, and 4 (Kirkpatrick & Kirkpatrick, 2016).

There are three essential principles for the evaluation framework. First, all question items will be created based on the learner-centered approach. The consideration is to design questions that establish relevance for the learners to maintain the validity and reliability of responses. Second, a blended approach will be used, which is to include all four levels from the Kirkpatrick's Evaluation model in the evaluation questions to assess reaction, learning, behavior, and results. Lastly, the framework will follow the 6-step psychological measurement principles to ensure the effectiveness of evaluation questions (Kirkpatrick & Kirkpatrick, 2016).

Level 4: Results and Leading Indicators

This level evaluates the degree to which the targeted business goals or ultimate learning outcomes are achieved as a result of the learning solution in the long term. Critical behaviors or key performances that progressively meet the metrics that lead to the final goal can be used as leading indicators (Kirkpatrick & Kirkpatrick, 2016). The key indicators for this course can be

divided into two main categories: internal and external. In the short term, internal indicators for the success of the course can be evaluated from the adaptability and longevity of the course, the sustainability in terms of costs and ROI, and the growth in completion rate. In terms of external indicators, it will be grounded in the impact on learners, from their satisfaction and referral rate, to their achievements in their career, the impact they have on the organizations they work in, and the increase in job placement rates in the immigrant workforce. Table 4 shows the metric to evaluate *Level 4 Results* in detail through the leading indicators for both internal and external outcomes.

Table 4

Indicators, Metrics, and Methods for External and Internal Outcomes

Outcome	Metric(s) (Unit of measure)	Method(s) (How measured)
External Outcomes		
Increased job placement in the immigrant workforce	Higher employment percentage rate of Asian female immigrants in the private sector and in positions of leadership.	Data collected from student surveys from the local community colleges and adult schools where learners used to be in.
Increased impact on learners' organizations	Employees' added value to the company from their performance evaluation data and their salary increase in percentage.	Data collected from the organization where learners take part in.
Increased number of learners achieving their short-term career goals	Career goals achieved by learners that are set at the start of the course in percentage.	Periodical learner surveys and interviews.
Increased number of learners have achieved their long-term career goals	Increased number of applicants from alumni who are qualified as mentors for the course in percentage.	<ul style="list-style-type: none"> Application number calculated for learners who returned as mentors for the new students.

Increased learners' ongoing satisfaction	Increase in learners' ongoing satisfaction of the course in percentage.	<ul style="list-style-type: none"> ● Periodical learner surveys and interviews. ● Numbers of referrals calculated.
Internal Outcomes		
Short-term and long-term improvement of the course	Length of time since the course launched in the number of years and ongoing improvements made to adapt to changes in percentage increase.	<ul style="list-style-type: none"> ● Length of time tracked since the course launched. ● Improvement records for different versions of the courses that made a positive impact on learning outcomes.
Sustainability of the course	Maintaining or improving a consistent cost-revenue ratio.	Evaluated from expenses and revenues analysis.
Sustainability of the course	Increase in course completion rate and consistency in high course completion rate.	Data collected from course completion rate.
Internal quality ratings by key employees	Maintaining a good score of internal rating among key employees, who are mentors and accountability advisors of the course.	Data collected from internal meetings, interviews, and surveys.

Level 3: Behavior

Level 3 behavior evaluates knowledge transfer, specifically, how effectively learners apply the new knowledge they have learned to real-world contexts (Kirkpatrick & Kirkpatrick, 2016). This is the most crucial level. If the learning is not leading to learners' behavioral change, the learning solution will fail to serve its purposes, as real learning eventually causes change in behaviors (Mayer, 2011).

Critical Behaviors Required to Perform the Course Outcomes

Critical behaviors refer to the key behaviors that can be visibly performed, measured, and are closely aligned with the learning objectives that drive the ultimate goals (Kirkpatrick & Kirkpatrick, 2016). The metrics to evaluate the critical behaviors for the course outcomes are presented in Table 5 below.

Table 5

Critical Behaviors, Metrics, Methods, and Timing for Evaluation

Critical Behavior for Course Outcomes	Metric(s) (Unit of measure)	Method(s) (How measured)	Timing (How often)
1. Given a new professional opportunity, the learner can self-evaluate and make a list of current personal internal and external barriers to achieve a professional goal.	Personal barrier self-evaluation worksheet rubric	<ul style="list-style-type: none"> ● End-of-the module worksheet ● Weekly discussion ● Mentor and accountability advisor check-in session 	At the end of Module 3 of Unit 1
2. Given a new professional opportunity, the learner can self-identify strengths and make a list of personal assets with a continuously growing cultural identity.	<ul style="list-style-type: none"> ● Peer discussion/weekly reflection evaluation rubric ● Accountability advisor check-in evaluation rubric 	<ul style="list-style-type: none"> ● Meet with a mentor for formative evaluation ● Peer discussion ● Self-reflection 	At the end of Unit 2
3. Given a new professional opportunity, the learner can make a list of key strategies for powerful communication and	<ul style="list-style-type: none"> ● Peer discussion/weekly reflection evaluation rubric 	<ul style="list-style-type: none"> ● Meet with a mentor for formative evaluation ● Peer discussion 	Throughout Unit 2-6 (regularly)

confident self-expression.	<ul style="list-style-type: none"> Accountability advisor check-in evaluation rubric 	<ul style="list-style-type: none"> Self-reflection 	
4. Given a new professional opportunity, the learner can list key strategies to maximize potential and overcome resistance in the workplace.	<ul style="list-style-type: none"> Peer discussion/weekly reflection evaluation rubric Accountability advisor check-in evaluation rubric 	<ul style="list-style-type: none"> Accountability advisor check-ins Mentor 1-on-1 session consultation and evaluation Self-reflection 	Throughout the course, but focused on Unit 4.
5. Given a new professional opportunity, the learner can list key strategies to activate resources in the workplace.	<ul style="list-style-type: none"> Peer discussion/weekly reflection evaluation rubric Accountability advisor check-in evaluation rubric 	<ul style="list-style-type: none"> Accountability advisor check-ins Mentor 1-on-1 session consultation and evaluation Peer discussion Self-reflection 	Throughout the course, but focused on Unit 5.
6. Given a new professional opportunity, the learner can construct a personal strategy implementation plan with detailed action items.	Personal strategy implementation plan with actionable items and realistic periodical goals (deliverable)	<ul style="list-style-type: none"> Accountability advisor check-ins Mentor 1-on-1 session consultation and evaluation Peer discussion Self-reflection 	Throughout Unit 6-7
7. Given a new professional opportunity, the learners can execute the personal strategy plan with self-monitoring.	Progress check on the personal strategy implementation plan.	<ul style="list-style-type: none"> Accountability advisor check-ins Mentor 1-on-1 session consultation and evaluation 	At the end of the course (Unit 7)
8. Given a new professional opportunity, the learner can evaluate personal	Progress check on the personal strategy implementation plan.	<ul style="list-style-type: none"> Accountability advisor check-ins Mentor 1-on-1 session 	At the end of the course (Unit 7)

success in achieving the professional goal.		consultation and evaluation	
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Required Drivers

Required drivers are processes implemented in the learning application phase that serve as the support or accountability system to drive critical behaviors in the form of reinforcement, encouragement, reward, or monitoring (Kirkpatrick & Kirkpatrick, 2016). Table 6 shows the required drivers from the four categories that are implemented in the design of this course to support the critical behaviors.

Table 6

Required Drivers to Support Critical Behaviors

Method(s)	Timing	Critical Behaviors Supported 1, 2, 3 Etc.
Reinforcing		
Unit recap modules	At the beginning a new unit.	1, 2
Self-directed learning	Throughout the course.	1, 2, 3, 4, 5
Handouts	Will be provided to accompany lessons as well as at the time of practice activities.	1, 2, 3, 4, 5
Course checklists	Will be introduced and provided in the beginning of the course.	1, 2, 3, 4, 5
Q&A discussion thread	Assess provided throughout the course.	1, 2, 3, 4, 5
Encouraging		
Mentoring	Weekly mentor session.	1, 2, 3, 4, 5
Cohort support circle	<ul style="list-style-type: none"> ● Introduction at the beginning cycle of each new cohort group. ● Assess provided throughout the course. 	1, 2, 3, 4, 5
Rewarding		

Virtual badge for achievements	When 70% of tasks are completed from the action plan.	1, 2, 3, 4, 5
Recognition	Weekly group meetings, virtual news board.	1, 2, 3, 4, 5
Monitoring		
Accountability support	Weekly accountability advisor check-in.	1, 2, 3, 4, 5
LMS dashboard data-tracking	Throughout the course.	1, 2, 3, 4, 5
Self-monitoring	Throughout the course.	3, 4, 5
Actionable plan monitoring	At the start of the completion of the action plan unit.	5
Survey	Throughout and at the completion of the course.	1, 2, 3, 4, 5

Organizational Support

Organizational support can be in the form of financial, moral, or belief support that stakeholders hold within the organization where the course will be implemented to foster learning and yield the desired results (Kirkpatrick & Kirkpatrick, 2016). The implementation of this course will not be limited to one organization, but rather multiple non-profit organizations as its starting point, such as public adult schools, community colleges, or immigration service organizations. Since the course provides free-access and its course goals align with the missions of the organization, non-profit organizations mentioned above can help promote the course and provide access support, such as distribution of course flyers; providing time for course enrollment and info sessions; allowing learners to use the computer labs onsite to take the course, etc. Resources that support the growth of the course can also be provided at a more developed phase. For example, through organizational social networking, guest speakers, mentors, or accountability advisors can be invited for the course.

Level 2: Learning

Level 2 learning is evaluated by the intended declarative and procedural knowledge, skills, attitude, confidence, and commitment that learners gain through their participation in the learning activities of a course or training (Kirkpatrick & Kirkpatrick, 2016). In short, this level focuses on the degree to which learners have achieved the learning objectives for the course before learning transfer happens that causes behavioral changes. The learning objectives are a list of targeted knowledge or skills that the course will teach, which aligns with the overall course goal and final intended results (Clark, 2004).

Terminal Learning Objectives

By the end of this course, learners are expected to be able to identify and self-assess their personal internal and external barriers in their working space; then, select the mindset strategies taught in this course to develop and execute an action plan to break the bamboo ceiling that is closely tied to the realization of their career goals. The terminal objectives for each unit of the course are listed below.

1. Self-evaluate and make a list of current personal internal and external barriers to achieve a professional goal.
2. Self-identify strengths and make a list of personal assets with a continuously growing cultural identity.
3. Recall the steps to apply strategies for powerful communication and confident self-expression.
4. List key strategies to maximize potential and overcome resistance in the workplace.

5. List key strategies to activate resources in the workplace.
6. Construct a personal periodic strategy implementation plan with detailed action plans.
7. Execute the personal strategy implementation plan with self-monitoring.
8. Evaluate your success in achieving the professional goal.

Components of Learning Evaluation

To evaluate learning with the terminal learning objectives in mind, this course will implement both formative and summative evaluations. Formative components include knowledge-check questions in each unit module; informal peer discussions through the LMS discussion board; learner surveys and interviews; and weekly check-ins with accountability advisors and mentors. Summative assessment components include unit quizzes, worksheets, the course checklist, and action plan trackers. Table 7 shows how and when these formative and summative evaluations are implemented for the different learning components: declarative knowledge, procedural knowledge, attitude, confidence, and commitment. Note that some methods and activities are used repeatedly or simultaneously across different components of learning with the intention of optimizing evaluation efficiency.

Table 7

Evaluation of the Components of Learning for the Course

Method(s) or Activity(ies)	Timing
Declarative Knowledge “I know it.”	
In-take survey	Prior to the course.
Knowledge-check questions	During each course module.
End-of-lesson quiz	At the end of each lesson.
Lesson worksheets	Provided with the lesson, learners will be instructed to download prior to the lesson.

Unit quiz	At the end of some units.
Procedural Skills “I can do it right now.”	
Intake survey	Prior to the course.
Lesson worksheets	At the end of a lesson.
Written self-reflection	At the end of a lesson.
Peer discussion on LMS discussion thread	Throughout the lesson module.
Action plan	At the end of the lesson on “how to create an action plan.”
Checklists	Throughout the lesson
Attitude “I believe this is worthwhile.”	
Intake survey	Prior to the course.
Peer discussion on LMS discussion thread	Throughout the lesson module.
Weekly check-in meetings	During weekly accountability advisor check-ins.
Mentor session	During weekly mentor sessions.
Confidence “I think I can do it on the job.”	
Peer discussion on LMS discussion thread	Throughout the lesson module.
Weekly check-in meetings	During weekly accountability advisor check-ins.
Mentor session	During weekly mentor sessions.
Self-reflection	At the end of the unit.
Mid-course survey	Half-time through the course.
End-of-course survey	Upon completion of the course.
Course exit interview	Upon completion of the course.
Commitment “I will do it on the job.”	
Weekly check-in meetings	During weekly accountability advisor check-ins.
Mentor session	During weekly mentor sessions.
Self-reflection	At the end of the unit.
End-of-course survey	Upon completion of the course.
On-going survey	Within the first months, three months, six months after the course is completed.
Course exit interview	Upon completion of the course.

Level 1: Reaction

At this level, the reactions of learners, such as the level of engagement, relevance, and satisfaction of the learning experience, are taken into account in the evaluation process (Kirkpatrick & Kirkpatrick, 2016). Throughout the course, formative methods such as informal

observation during live mentor sessions, accountability advisor check-ins, interviews, and surveys will be implemented throughout each phase of the course to constantly check the learner's engagement, reaction to the instruction, level of relevance to the course, and mental states and motivation changes based on environmental factors such as work-life-balance, personal illness, life changes, etc. Summative methods will also be used, such as data-tracking and analytics from the LMS. See Table 8 for a complete list of the methods and tools used to assess learners' reactions to engagement, relevance, and customer satisfaction.

Table 8

Components to Measure Reactions to the Course

Method(s) or Tool(s)	Timing
Engagement	
Mentor live session	Weekly
LMS data-tracking for engagement and progress	Throughout the course
Accountability advisor check-ins	Weekly
LMS discussion forum	Weekly
Relevance	
Pulse check questionnaire	Weekly for live mentor sessions Monthly for self-paced lessons
Accountability advisor check-ins	Weekly
Customer Satisfaction	
Mid-course survey	Monthly
End-of-course survey	At the completion of the course
Exit interview	At the completion of the course

Evaluation Tools

This section will summarize the main evaluation instruments created for this course that target all four levels of evaluation of the Kirkpatrick model at different stages of the course implementation (Kirkpatrick & Kirkpatrick, 2016).

Immediately Following the Course Implementation

For *Level 1 Reaction* and *Level 2 Learning* evaluations, mid-course surveys and accountability check-ins will be implemented immediately following the initial start of course instruction. Table 9 and Table 10 shown below are the evaluation implementation items for the mid-course survey and accountability check-in respectively. The Mid-course Survey contains 4-level Likert Scale questions and open-ended questions. These two types work in complement with one another to grasp the accuracy and specificity of the responses. The Accountability Check-in Record Form will be used as a guide and record sheet for the weekly accountability advisor sessions. It provides a structure for the best use of time in addition to providing follow-up support to the learners.

Table 9

Mid-course Survey Questions

Questions Types	Questions	Evaluate Reaction or Learning
Likert Scale	How would you rate the quality of visuals (images, videos)?	Reaction
	How would you rate the course in terms of structure (logical, easy to follow, confusing)?	Learning
	How easy or difficult was it to understand the concepts?	Reaction and Learning
	How easy or difficult was it to navigate the LMS?	Reaction
	How would you describe quizzes in terms of difficulty level and range of topics covered?	Reaction and Learning
Open-Ended	Did you Google/research some topics while taking the course? Why?	Learning
	Did you skip any parts? Why?	Reaction and Learning

	What's working and what's not working for you. You may discuss anything, but please be specific.	Reaction and Learning
	Which topics do you wish were more in-depth? Why?	Reaction and Learning
	What is one thing that you enjoyed the most?	Reaction and Learning

Table 10*Accountability Check-in Record Form*

Areas to Check with the Learner
Accountability Advisor: _____ Learner: _____ Week _____
Goals: Check in on any questions, concerns, offer support and direct the learner to resources as needed.
1. Check if the learner has any question of any sorts.
2. Check in or observe the following areas. Record response as detailed as possible. <ul style="list-style-type: none"> ● Learning experience (ask open questions and build off conversation as needed.) ● Motivation check (ask time spent on the course, mood, and confidence) ● Current difficulties or challenges ● Use of resources ● Progress of the course

Delayed For A Period After The Course Implementation

After a delayed period following the course implementation, all levels will be assessed through a variety of evaluation instruments, including evaluation rubrics for weekly discussion posts, LMS quiz data, student written reflections, end-of-course surveys, exit interviews, and the live session pulse check questionnaire through an online poll. Table 11 shows one of the evaluation rubrics for the weekly discussion. This rubric evaluates Level 1 Reaction, Level 2 Learning, and Level 3 Behavior through the form of personal narratives and peer discussion. Learners are instructed to make their initial personal post on the topic related to the weekly task, through which they will share their experience implementing one of the mindset strategies into their personal contexts and any achievement, epiphanies, or challenges. Then they will respond to at least 2 cohort members. Table 12 shows the end-of-course survey questions similar to the mid-course survey mentioned previously. Both Likert scale and open-ended questions evaluate from multiple levels at the same time.

Table 11

Evaluation Rubric for Discussion Thread Post

	Below Average - 1	Average - 2	Little Above Average - 3	Beyond Average - 4
Understanding of Concepts (L2)	The initial discussion post shows lack of understanding or misunderstandin g of the concepts.	The initial discussion post shows a basic understanding of the concepts.	The initial discussion post shows in-depth understanding of the concepts with adequate explanation.	The initial discussion post shows in-depth understanding of the concepts and provides detailed elaboration of concepts.
Personal Relevance	Neither initial discussion post	The initial discussion post	The initial discussion post	The initial discussion post

(L1, L2)	nor responses to peers address personal experience or understanding.	and responses to peers address somewhat personal experience or understanding.	and responses to peers address adequate personal experience or understanding.	and responses to peers address sufficient personal experience or understanding.
Engagement (L1, L2)	The initial discussion post does not meet the length requirement. No responses to peers.	The initial discussion post just meets the length requirement. Initial discussion responded to peers.	The initial discussion post meets the length requirement and responses to peers show thoughts and care.	The initial discussion post meets the length requirement and responses to peers show thoughts and build up further discussions.
Confident Level of Strategy Implementation (L1, L2, L3)	The initial discussion post implies learner's concerns applying the strategies.	The initial discussion post shows minimal concerns applying the strategies.	The initial discussion post indicates optimism applying the strategies.	The initial discussion post indicates optimism and high confidence applying the strategies.
Results (L4)	The initial discussion post does not include or indicate positive impact from the course content on personal or organizational levels..	The initial discussion post shows minimal indication of positive impact from the course content on personal or organizational levels.	The initial discussion post includes or indicates positive impact from the course content on personal or organizational levels.	The initial discussion post includes or indicates a strong sense of positive impact from the course content on both personal and organizational levels.

Table 12*End-of-course Survey Questions*

Questions Types	Questions	Level(s) of Evaluation
-----------------	-----------	------------------------

Likert Scale	How would you rate your experience from the LMS?	Level 1, 2
	How would you rate your overall learning experience for this course?	Level 1, 2, 3, 4
	How would you rate your overall user experience for this course from the learning modules?	Level 1, 2
	How would you rate your experience learning with your cohort?	Level 1, 2
	How would you rate your experience with guest speaker sessions?	Level 1, 2
	How would you rate your experience with your accountability advisor?	Level 1, 2
	How would you rate your experience in the live mentor sessions?	Level 1, 2
Open-ended	What is one thing that you enjoyed the most?	Level 1, 3, 4
	What did you wish to see in the course (and it wasn't there)?	Level 1, 2
	If you could change one specific thing, what would that be?	Level 1, 2
	What made you stick to the end?	Level 1, 2, 3, 4
	To whom would you recommend this course?	Level 1, 2, 3, 4
	What was the most useful thing that you have learned?	Level 2, 4
	Did the course make you think differently about a certain topic?	Level 2, 4
	Name one topic that you wish the course covers more about.	Level 2, 4
	Did you connect with other learners (sharing resources, ideas)? Why or why not?	Level 1, 2
	Were there any moments when you felt frustrated? Why?	Level 1, 2
	Will you continue to implement the strategies that you have started implementing within one month of course completion?	Level 1, 3, 4

Besides the two evaluation items shown above, which are to be implemented during the same stage, the two following items, *Questions for Written Reflections* and *Exit Interview Questions* will be used for the evaluation of Level 2 Learning, Level 3 Behavior, and Level 4 Result.

Questions for Written Reflections

(regular questions only, without specific questions for relevant topics for the module)

1. What's your biggest take-away from this week's mentor session?
2. What epiphany do you have this week?
3. What strategies have you implemented this week?
4. Did you encounter any challenges, if not, what are some of your achievements this week?

(Celebrate small wins!)

Exit Interview Questions

- What strategies from the course do you feel that have been working most effectively for you?
- Did you have any epiphanies?
- What are your major mindset shifts from what you have learnt from the course?
- What were some of your challenges?
- How confident are you with execution of your personal strategy implementation plan?
- How might you continue to apply what you have learnt from the course?

Data Analysis and Reporting

Finally, data from LMS analytics, learner surveys, interviews, and accountability advisor check-in data from all stages of the course implementation will be taken into account for analysis

and reporting. Visual representations to stakeholders will include tables and charts made in the Microsoft Excel Spreadsheet and infographics from Canva. Following the tables and charts with quantitative data, analysis reports will be presented, which include a result summary, highlights, and suggested action plan for both the short-term and long-term.

Conclusion

This course bridges current gaps in equity and diversity programs and/or resources by teaching mindset strategies that enable female immigrant groups in Asian American communities to battle the internal and external barriers of the bamboo ceiling caused by multiple layers of intersectionality and "break the bamboo ceiling from within." Grounded in the alignment across all learning goals and unit objectives with the overall organizational goal is the core tactic, and this course has intentionally followed this principle throughout the course design.

First and foremost, the lessons are designed to support learner autonomy and their self-monitoring skills in order to drive continuous development even a long time after course completion. Lessons are mapped out in order to gradually release the level of accountability from supporting systems and scaffolding to the learners themselves. Secondly, the design of this course has placed a major focus on the strategy implementation phase to drive learners' knowledge transfer. Support systems are implemented throughout the course with the intention of promoting engagement, maintaining motivation, building confidence, and supporting continuous growth through community building, peer and mentor support systems, and accountability check-ins. Finally, the topic of the course is teaching mindset strategies that are

aimed at attitude change. Attitude change induces behavior change, which in turn ensures a visible contribution to the organization's outcomes in the long run.

Lesson Analysis for One Lesson: Unit 1: Identify Your Bamboo Barriers

The focus of the lesson analysis will be Unit 1 as it is the most critical unit of the course. It introduces the basic concepts of the bamboo ceiling and barriers; guides learners to identify and further analyze their own personal barriers to an in-depth level. Therefore, it helps set a cognitive and metacognitive foundation that establishes course value for learners to strive throughout the course and eventually complete the course and achieve the outcomes as desired with a problem-solving mindset. The major task learners are expected to do by the end of the unit is to self-evaluate and make a list of current personal internal and external barriers to achieve a professional goal.

Terminal Learning Objective

To achieve the terminal objective of this unit, learners obtain declarative knowledge such as stating the definition of the bamboo ceiling and different types of internal and external barriers. In addition, the end-of-unit task requires learners to practice intellectual skills, such as applying the steps taught to self-evaluate their personal barriers in life and workplace (Gagne, 1985; Krathwohl, 2002). Below is a list of enabling objectives breakdown of the terminal objective of the unit.

Unit 1: Identify Your Bamboo Barriers

1. Given a new professional opportunity, the learner can self-evaluate and make a list of current personal internal and external barriers to achieve a professional goal. (Learning Goal 1)
 - a. Declarative
 - i. Given a list of terms, the learner can state the definition of different types of internal barriers and external barriers; (A)
 - ii. Given guided prompts, the learner can paraphrase the definition of professional goals and personal interests; (A)
 - b. Intellectual skills
 - i. Given a guided worksheet, the learner can self-evaluate personal barriers in the workplace and daily life; (S)
 - ii. Given an learner work sample, the learner can follow and identify personal goals and personal interests; (S)

Cognitive Task Analysis

The cognitive task analysis for this unit follows the same five-stage process to optimize the result of learning design as addressed previously for the course. The five stages are: collecting preliminary knowledge; identifying knowledge representation; applying focused knowledge elicitation methods; analyzing and verifying data acquired; and formatting results for the intended application (Clark et al., 2008). Preliminary knowledge for this unit is gathered from three main sources: online academic literature; the book *Breaking the Bamboo Ceiling* (2005) by Jane Hyun; and interviews with subject matter experts (SMEs). In the initial stage of

bootstrapping, relevant information and learning content were explored via Google search on the two key questions: "What are personal barriers?" "How to self-evaluate personal barriers in the workplace?" Information relevant to the self-evaluation process for personal barriers with solutions to overcome them in life and at work was collected. Then academic literature, such as research articles, was collected through Google scholar on the same topics. Following this step, interviews were conducted with four SMEs from both the academic and professional space who are currently in leadership positions in their organizations.

The SMEs chosen share similar cultural backgrounds and professional experiences with the target learner groups of this course, two of which will be the mentors of the course for one-on-one live sessions. They were invited to share their personal stories to be used as authentic examples of how to self-evaluate personal barriers as well as their personal strategies to identify and overcome their personal barriers in the workplace. Through this approach, learners can develop a deeper connection with their mentors as well as build their confidence by knowing that real-world examples are represented in front of them. In addition, the SMEs participated in selecting and reviewing the preliminary content gathered from previous steps to create unit goals as well as designing enabling tasks required to achieve the unit terminal objective. This cognitive task analysis process is a top-down technique to outline key tasks of what learners must do and make sure that they align with the terminal objective of the unit and its enabling objectives (Clark et al., 2008).

Cue

Learners will first complete the e-learning course modules and pass the knowledge check by 80% on different types of internal and external barriers of the bamboo ceiling. They will get

to meet their accountability advisor for the first time to check their learning status and mental state, including preparedness. At around the same time, depending on how the learner wants to order their learning, they will attend a whole group discussion with a mentor as well as a mentor one-on-one session check-in. After completing the three live sessions, the learner will proceed to the task at the end of the unit.

Condition

Learners will be given a guide and a structured learning aid to help them journal about what personal barriers they observe in their personal lives and professional work environments. After completing three live sessions with the accountability advisor, cohort discussions, and mentor check-in, learners will create a deliverable item in writing to record and reflect on their observation and evaluation of their personal barriers based on the prompt at the end of Unit 1 as a summative assessment.

Standards

In order to develop their strategy implementation plan in the following units, learners will be able to demonstrate that they can write down a list of current internal and external personal barriers in their lives or at work, provide at least 1-3 pieces of credible evidence for each barrier, and discuss the writing during a live discussion with a mentor.

Equipment

Learners will need technology devices that allow them to access the Learning Management System (LMS) and virtual conference tool, Zoom, to participate in live sessions. For learners that need additional accessibility support, they may need a screen reader, text-to-speech software, an auditory assistive system, or other assistive technology devices. The

following is a complete list of equipment, tools, and materials each learner needs to complete the task.

- Internet access
- Laptop or tablet and headset with microphone
- Zoom app installed
- Eduflow LMS account
- Main course modules
 - Instructional videos
 - Knowledge check
 - Peer discussion board
- Handout:
 - Definitions of internal and external barriers
- Course Roadmap (Individual Task Checklist)
- Work examples:
 - Peer examples of self-evaluation worksheet (of personal barriers)
 - Mentors' examples of self-evaluation of personal barriers
- Self-evaluation worksheet
- Live session sign-up sheet on Google Spreadsheet

Action and Decision Steps

The cognitive task analysis outlines that the learner must obtain the declarative knowledge and intellectual skills in this unit through the following action steps and mental

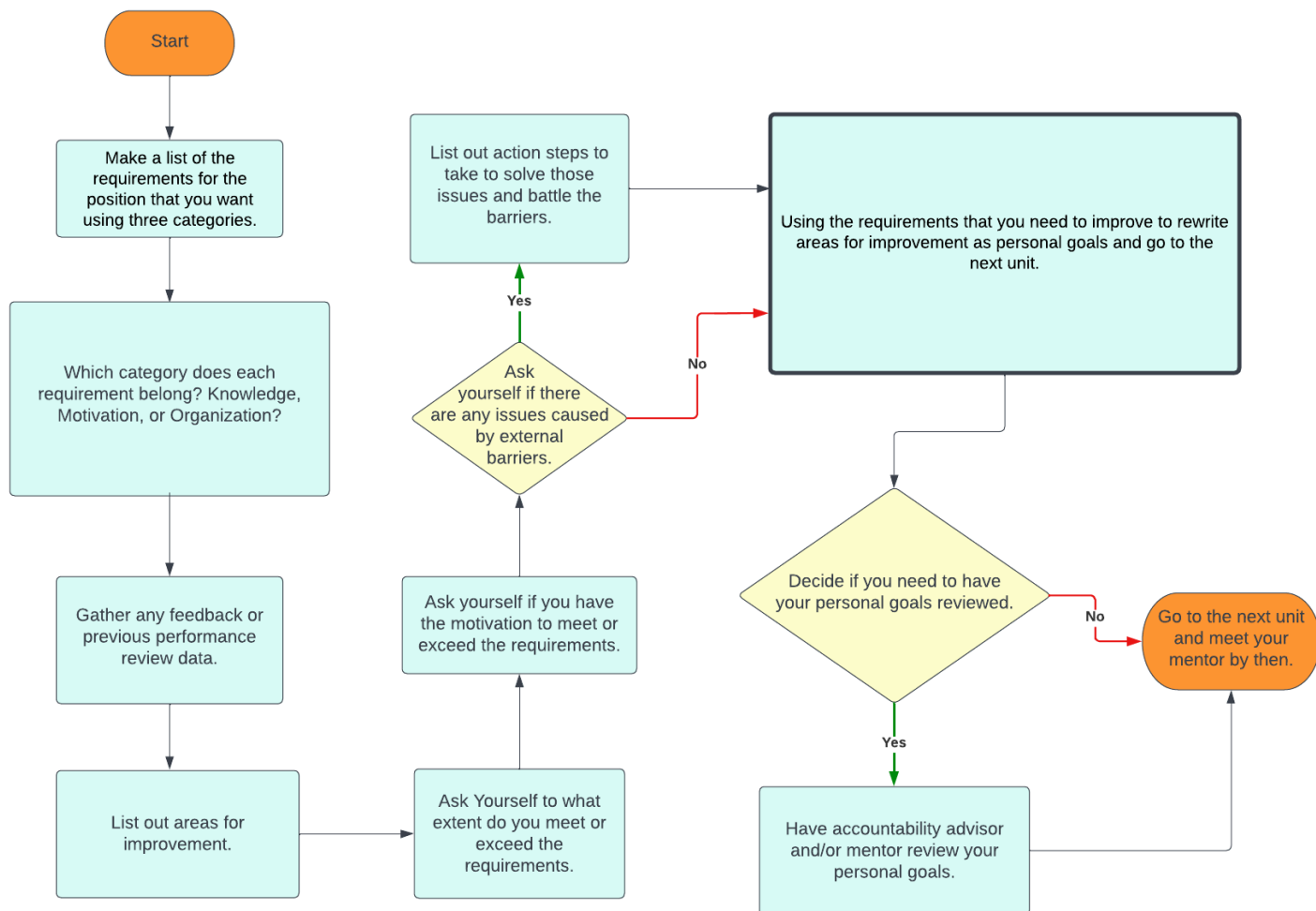
operations to be able to achieve the learning goal of self-evaluating personal barriers in daily life and the workplace.

1. Make a list of the requirements for the position that you want using three categories:
 - a. Knowledge (Do I have the knowledge to perform the job duties of this position?)
 - i. **IF** the requirement suggests anything you need to know or be able to do, **THEN** write it in the knowledge section.
 - b. Motivation (Do I value achieving this position? Am I confident that I can perform the job duties?)
 - i. **IF** the requirement suggests any non-skill/knowledge related commitments for the job position, **THEN** write it in the motivation section.
 - c. Organization (What organizational requirements or policies does this position have?)
 - i. **IF** the requirement suggests any policy-related or organizational specific rules, **THEN** write it in the organization section.
2. Gather any feedback or previous performance review data if available and list out possible areas for improvement or issues to address due to external barriers separately in two categories.
 - a. Areas for improvement
 - i. **IF** the feedback or performance review data suggests opportunities for improvement, **THEN** write it in the first category.
 - b. Issues to address

- i. **IF** the issue suggests unfair treatment due to any external barriers, **THEN** write it in the second category.
3. Ask yourself to what extent do you meet or exceed the requirements (or have the motivation to meet the requirements?) and make a mark on your list.
 - i. **IF** you are uncertain about whether you have met the requirements, **THEN** consult an experienced working professional or your supervisor/manager.
4. Ask yourself what are the actions steps you could take to battle issues due to external barriers and make a list of action items.
 - i. **IF** you need to report the case to the human resources department or to file a lawsuit, **THEN** get resources for instructions .
5. Using the requirements that you need to improve to rewrite the areas for improvement as personal goals and go to the next unit.
 - i. **IF** you need support, **THEN** post questions to the peer discussion board or seek help from an accountability advisor and/or your mentor.

Figure 2

Cognitive Task Analysis Graphic Flowchart. [See full size document](#)



Assessment of Learning During Instruction

Assessment of Learning During Instruction One Lesson

Entry Level Skills

The entry-level skills of this course include declarative knowledge and attitudes that drive motivation for learning. Declarative knowledge includes the definitions of the "bamboo ceiling,"

"internal barriers," and "external barriers" of the bamboo ceiling. Learners will also need to recognize the value of breaking the barriers and the bamboo ceiling and be motivated to learn the strategies in this course to break their personal bamboo barriers. To assess these mentioned entry-level skills, learners will complete an intake survey with constructed answer items for declarative knowledge that require them to produce a written response, such as open-ended questions; and Likert scale questions for their level of motivation, through which learners will be asked to rate the importance of a few learning tasks (Smith & Ragan, 2005).

Pre-Assessments of Prerequisite Knowledge

Pre-assessments of this unit are aimed to assess whether learners have achieved the enabling objectives of the terminal objective of this unit (Smith & Ragan, 2005). The general strategy of the pre-assessment includes constructed responses with three components: an independent worksheet, peer discussion, and mentoring call (Smith & Ragan, 2005). The first component is an independent knowledge check worksheet with two sections that assess both declarative knowledge and intellectual skills. In the first section, learners will be asked to make a list of 2-3 different types of internal and external barriers, as well as state their professional goals and interests in their own language. In the second section of the worksheet, instructions and student work examples will be provided on how to evaluate professional strengths and weaknesses. Learners will follow the directions to write down strengths and weaknesses that may help or hinder them in realizing their professional goals.

The second component is peer discussion, which requires learners to reformulate and share their responses to the knowledge check worksheet to the peer discussion board on the learning management system (LMS). This component continues to assess declarative knowledge

and intellectual skills and aims at delving deeper into the assessment prompts through peer interactions so that more assessment data or information can be gathered from the learners. Responses for both components will be evaluated by the course mentors, who are also instructors, to determine whether learners have achieved the terminal objectives and its enabling objectives.

Then finally, the third component is one-on-one virtual mentoring calls. The purpose of this virtual meet component is to gather responses verbally and meet the learner face-to-face individually to get to know the learner on another level, and explore the possibilities of miscommunication or misalignment through the written responses; and gives learners a final sign-off to move on to the next unit. Mentors will ask for elaboration or clarification on the written responses and redirect learners as needed.

Assessments for facilitating learning objectives are listed and aligned in the subsequent paragraph below.

Terminal and Enabling Learning Objectives for Unit 1 (with assessments number labeled)

1. Given a new professional opportunity, the learner can self-evaluate and make a list of current personal internal and external barriers to achieve a professional goal.
 - a. Declarative
 - i. Given a list of terms, the learner can state the definition of different types of internal barriers and external barriers (O1);
 1. Assessment (A1):
 - a. Constructed response on independent worksheet
 - b. Peer discussion post

- ii. Given guided prompts, the learner can paraphrase the definition of professional goals and personal interests (O2);
 - 1. Assessment (A2):
 - a. Constructed response on independent worksheet
 - b. Peer discussion post
 - c. Accountability advisor call
- b. Intellectual skills
 - i. Given a guided worksheet, the learner can self-evaluate personal barriers in the workplace and daily life (O3);
 - 1. Assessment (A3):
 - a. Constructed response on independent worksheet
 - b. Peer discussion post
 - c. Mentor one-on-one call
 - ii. Given an learner work sample, the learner can follow and identify personal goals and personal interests (O4);
 - 1. Assessment (A4):
 - a. Constructed response on independent worksheet
 - b. Peer discussion post
 - c. Accountability advisor call

Retrieval Practice and Self-Regulation

Retrieval Practice will be incorporated into the course modules as an assessment as well as learning activities to serve the role of self-monitoring as well as increase engagement. For

each 1-2 minute course module, there will be a quick knowledge check in the form of "recall items," through which learners will be asked to paraphrase the definition of each internal or external barrier that was introduced in the learning module (Smith & Ragan, 2005). Responses will be collected by the learning management system (LMS), and course instructors can retrieve this data from the learner report. Learners can have access to their own report to view timely feedback after it is reviewed by the instructor and use the feedback to self-regulate during their asynchronous learning.

Post Assessments

The post assessments for this unit assess whether the terminal objective has been achieved. Learners will self-evaluate their current professional opportunities and make a list of personal internal and external barriers in order for them to achieve a professional goal.

The post assessment will be in the form of an independent worksheet provided with some examples of professional goals along with examples of internal and external barriers so that learners are guided to brainstorm a few of their own (Smith & Ragan, 2005).

Anderson and Krathwohl Table

According to Anderson and Krathwohl (2001), the knowledge dimension dissects knowledge into four types: factual knowledge, conceptual knowledge, procedural knowledge, and metacognitive knowledge. Six action verbs are distributed in progressive levels of learning to accompany the four knowledge types. The chart below illustrates how the learning objectives and assessments of this course are aligned in this fashion. Refer to labeled learning objectives and assessments at the end of the previous section.

The Knowledge Dimension	The Cognitive Process Dimension					
	Remember	Understand	Apply	Analyze	Evaluate	Create
Factual Knowledge		O1 A1				
Conceptual Knowledge		O2 A2				
Procedural Knowledge			O3 A3			
Metacognitive Knowledge				O4 A4		

O = Objective, A = Assessment

Learning Activities for One Lesson

General Approach

The purpose of this unit is to lay a great declarative foundation for the entire course. Definitions for the main terms will be introduced and explained in this section. Learners will be exposed to a large amount of new or unfamiliar information that they will need to digest in order to build on peer discussions with a more in-depth understanding. Due to the fact that the human brain has limited capacity for processing information, including the number of units of different multimedia, Thus, the cognitive load theory is incorporated as the general approach to the instructional design of this course to assist learners with intrinsic processing while minimizing distraction from extraneous information (Mayer, 2002).

Learner Characteristics and Prior Knowledge

Learners who enroll in this course can be divided into two categories based on their prior knowledge. Around 90 percent of them chose to enroll voluntarily because they are seeking support in breaking the bamboo ceiling or are interested in getting to know more about the bamboo ceiling in general, including what barriers are commonly existing and strategies to break those barriers. The other 10 percent of learners are introduced to the course through their organization, and through the organization, they encounter the definition of the bamboo ceiling or any related topics for the very first time. They are recommended to enroll because instructors from the organization thought it could be beneficial as their profile seems to fit into the learner characteristics of the course.

That said, the first group of learners has a basic understanding of the course topics so that they will be able to retain any build-on information more effectively due to prior knowledge, which helps them connect old knowledge with new relevant knowledge (Mayer, 2011). As for the other group of learners, they might require additional support or pre-training in order to achieve the same learning results as the first group. The knowledge integration process of connecting the old with the new will most likely take a longer time (Mayer, 2002).

Cognitive Load Theory

There are quite a few strategies that have been used to manage intrinsic load, reduce extraneous load, and increase germane load. To help learners manage the intrinsic load, the learning content has been segmented into digestible and manageable chunks. For example, each lesson contains 2-3 modules that are less than 5 minutes long. Any redundant or inessential content is avoided in order not to overwhelm learners who are just getting started with the new

topics. Learning materials for each learning activity have been strictly selected to align with the objectives of the lesson, and only content that serves this purpose and assists in generative processing is kept in the module; otherwise, the materials will be attached as supplantive resources under the course for learners to browse optionally as needed. In addition to segmenting, prior to each lesson, a pre-training module is incorporated to prepare learners with zero or insufficient prior knowledge of the course topics. All course modules are designed with signaling elements to attract learners' attention (Smith & Ragan, 2005). For example, the course modules that have been developed with multimedia have also followed Mayer's multimedia principles, such as the spatial contiguity principle and the temporal contiguity principle, to reduce extraneous processing (Mayer, 2002). For example, visuals with terminologies have labels in proximity so that learners can comprehend the visual instantly in an integrated way. Moreover, whenever narration is combined with the visuals, only essential on-screen texts are shown in a synchronous way.

Instructional Strategies

The overall instructional approach for the entire course is to use the choice of generative-supplantive instructional strategies model, which means choosing between generative and supplantive strategies that best fit each learning activity in order to achieve the learning outcomes. The principle is that for learning tasks that require adequate prior knowledge or complex skills to ensure effective cognitive processing, generative strategies are chosen to ensure the learner's success by providing flexible learning choices, motivational and engaging interactions, longer time for processing information, and brief alignment on lesson goals. On the other hand, for learning tasks that are simple and only require minimal prior knowledge,

supplative strategies are chosen to support learners with high levels of scaffolding so that learners can manage content with minimal support or independently (Smith & Ragan, 2005). For example, all the synchronous learning activities are supplative, as learners will be provided with guidance and instructions to progress the interactive modules, including assignments and tests, at their own pace. They are provided with a clear course roadmap with lesson task breakdowns that align with learning objectives, as well as supplementary materials and peer support. After the supplative learning, learners will meet an accountability advisor and join the whole group for a one-on-one meeting with the mentor, where instructions will be conducted generatively. Learners can participate in collaborative learning as well as get instant personal feedback and support from mentors. Supplative learning works as pre-training in a sense, and generative learning will enhance learning through the processes of knowledge reinforcement, practice, feedback receiving, and misperception- or error-correction. These two types of learning complement each other to support the various stages of learning through progression.

Specific Approach

The specific approaches for the course derive from multiple learning and motivation theories. First of all, the lesson sequence is designed in a way to maximize learners' engagement, motivation, knowledge retention, and finally, achieving learning outcomes. It follows the process of gaining the attention of learners, an overview of learning objectives, the establishment of learning value by viewing learning benefits, the recall of prior knowledge, the primary processing of declarative knowledge, the assessment of pre-requisite knowledge, the demonstration of declarative knowledge and procedural knowledge, practice, summative

assessment, real-world application, and finally the review of big ideas and the transfer of knowledge.

Learning Activities Table

Table 13 below shows a complete course sequence map with all learning activities for Unit 1, with learning principles and both supplantive and generative instructional strategies in alignment. For each learning activity illustrated in this table, the principles and learning theories for the instructional strategies are provided, as well as the rationale for each. The column that describes instructional strategy depicts what the learning activity is in the learning management system (LMS). Likewise, the last column that describes "Activity" depicts what learners need to do for that learning activity. The learning activities incorporate both asynchronous and synchronous learning activities. Learners will be guided through all the course modules through the learning management system (LMS). All course modules are asynchronous, including videos, recorded lectures, interactive knowledge checks, as well as instructions on the course module directing them to sign up for the three synchronous sessions: a whole group mentor session with peers, an accountability advisor check-in session, and a mentor one-on-one session. These synchronous sessions are incorporated into the workflow of the unit learning activities. At each phase of the learning roadmap for Unit 1, learners are informed of what is coming next. Additionally, they are provided with the option to sign up for additional synchronous live support from mentors or accountability advisors. Thus, for the total instructional design shown on the Learning Activity table, the 60-minute length is an estimation as if no further additional synchronous instructions were requested from the learner.

Table 13*Learning Activities for Unit One*

1. Instructional Sequence	2. Time	3. Principle LDT Toolkit and readings	4. Rationale EDUC 503 Part 4	5. Instructional Strategy (Supplative) EDUC 503 Part 5	6. Activity (Generative) EDUC 503 Part 5
Gain Attention	2 min	Capturing and focusing the learner's attention increases the potential of learning. (LDT)	It's necessary to get the learner's attention so that they will be engaged and motivated to learn.	Course module directs learners to complete the interactive section of reviewing personal stories with struggles to battle personal barriers in the workplace.	Ask learners to think if they can relate or if they have had similar experience. "If you have a similar experience, then you came to the right course."
Learning Objectives	1 min	Learning and motivation are enhanced when learners set goals, monitor their performance and evaluate their progress towards achieving their goals. (LDT)	Learners see an overview of all the learning activities and can better prepare them in the self-directed learning process.	Course directs learners to review learning objectives and download a complete course roadmap with lessons and tasks breakdown.	Learners view learning objectives of the course and download the course roadmap.

1. Instructional Sequence	2. Time	3. Principle LDT Toolkit and readings	4. Rationale EDUC 503 Part 4	5. Instructional Strategy (Supplative) EDUC 503 Part 5	6. Activity (Generative) EDUC 503 Part 5
Reasons for Learning Benefits. Risks Avoided.	2 min	Learning and motivation are enhanced when learners have positive expectancies for Success. (LDT - Motivation)	It is important to build up the value of the learning experience and build on learners' confidence to maximize learner's self-efficacy.	Course module directs learners to complete the interactive section of reviewing personal success stories battling the barriers (this is a continuation of the first module showing successive stories of the same people).	Learners complete an interactive course module section on successful stories. (Asynchronous)
Overview: a. Review/Recall prior knowledge b. Entry level skills	3 min	Activating and building upon personal interest can increase learning and motivation. (LDT - Interest)	Learners explore deeper to find their personal interest in the course topic and achieve the course goals to increase their learning motivation.	Live session: the instructor asks the learner to share their experience of first encountering this term, "bamboo ceiling."	Learners recall and share their experience of how they first learned about the term "bamboo ceiling." (Synchronous)
c. Describe what is new (to be learned) d. New declarative	5 min	Learning is enhanced when the learner's working memory capacity is not overloaded. (LDT -)	Learners learn from new knowledge through the form of a story-telling video so that new information is less overwhelming with more engaging media.	During the live session, instructors will ask students to recall this video and explain to help understand or provide additional support to questions.	Learners watch an authentic story of someone going through personal barriers illustrating different types of barriers as well as unnamed strategies

1. Instructional Sequence	2. Time	3. Principle LDT Toolkit and readings	4. Rationale EDUC 503 Part 4	5. Instructional Strategy (Supplative) EDUC 503 Part 5	6. Activity (Generative) EDUC 503 Part 5
					to break those barriers. (Synchronous)
e. Describe/Employ learning strategies	10 min	Learning will be enhanced through learning communities. (Slavin, 2012)	Learners can support each other in the cognitive learning process as well as emotional support to build a strong learning community that fosters positive and effective learning.	Learners participate in peer discussion to learn from each other and support each other emotionally.	Learners identify and discuss their own internal and external barriers and potential strategies with the peers as a warm-up activity for in-depth learning of different strategies in the following units. (Asynchronous)
Assess prerequisite knowledge (the “what”) (Declarative knowledge, concepts, processes, principles) Enabling objectives assessment	5 min	Retrieval practice is effective in promoting knowledge transfer and the retention of new knowledge (LDT).	Learners will develop deep understanding and impression on the definition, as well as recapping what they have learned so that knowledge is better integrated in the brain for the long term memory.	Guided prompt will be provided on the worksheet as well as the peer discussion prior to this worksheet.	Learners paraphrase the definition of different types of internal and external barriers. (Asynchronous)

1. Instructional Sequence	2. Time	3. Principle LDT Toolkit and readings	4. Rationale EDUC 503 Part 4	5. Instructional Strategy (Supplative) EDUC 503 Part 5	6. Activity (Generative) EDUC 503 Part 5
<p>Demonstrate procedures (“how to”) CTA (Procedural knowledge)</p>	5 min	<p>Learning and motivation are enhanced when learners experience autonomy, enjoyment, and satisfaction. (LDT)</p>	<p>Video presentation is incorporated with visuals and texts that are aligned to help generative processing, so that learners have better learning experience for the dry content.</p>	<p>Learners will be provided with job aid that mapped out the ways to identify personal barriers.</p>	<p>Learners watch an explainer video on how to identify personal barriers. (Asynchronous)</p>
<p>Provide practice and feedback/Practice and evaluate feedback using checklist from the CTA</p>	15 min	<p>Enhancing epistemic emotions and positive emotions and reducing negative emotions enhances learning and motivation.</p>	<p>Accountability advisors and mentors will provide positive emotional support as well as guidance in order to make sure learners have a positive learning experience and minimize struggles and challenges.</p>	<p>Learners can schedule additional meetings with accountability advisors or mentors to seek help and resolve personal questions or struggles. Mentor and accountability advisor will provide feedback using the CTA checklist.</p>	<p>Learners meet with an accountability advisor and then join a mentor whole group session to discuss their personal barriers and clarify on any questions. (Synchronous)</p>
<p>Authentic assessment/ Assess learning using the checklist from the CTA</p>	15 min	<p>Learning and motivation are enhanced when learners are given opportunity to apply what they have learned in varying Contexts. (LDT)</p>	<p>Learners will practice mastery of new skills in authentic tasks.</p>	<p>Learners will get feedback from both peers and mentors on the LMS. Learners will also be provided with the job aid.</p>	<p>Learners submit written work reporting their thoughts and experience on their application identifying their barriers with job aid.</p>

1. Instructional Sequence	2. Time	3. Principle LDT Toolkit and readings	4. Rationale EDUC 503 Part 4	5. Instructional Strategy (Supplative) EDUC 503 Part 5	6. Activity (Generative) EDUC 503 Part 5
					(Asynchronous)
Retention and Transfer (p 138 S & R) How will you use it on the job	Varies	Learning and motivation are enhanced when learners are given opportunity to apply what they have learned in varying contexts.	Learners can be exposed to their personal environments that allow them to problem-solve with the new skills so as to enhance knowledge transfer.	Learners will continue to check in with accountability advisors and mentors to make sure they are supported in learning and mental challenges.	Learners will write reflection based on their application of the new knowledge in their personal life. (Asynchronous)
Big Ideas	2 min	Learning is enhanced when the learner's working memory capacity is not overloaded.	It is important to recap what has been learnt so that to offload the possible mental pressure that new information has been mostly retained and learned will be better prepared for the next unit.	Learners can access peer discussion boards to connect and have deeper conversation on the unit topics anonymously.	Learners complete an interactive course module that recap the unit. (Asynchronous)
Advance Organizer for the Next Unit	2 min	Learning and motivation are enhanced when learners set goals, monitor their performance and evaluate their progress	Learners will keep track of where they are in the course so as to achieve better self-learning outcomes.	Pre-training materials will be provided for learners to review prior to the start of a new unit.	Learners will review learning objectives of the next unit and have an overview of the course topics. (Asynchronous)

1. Instructional Sequence	2. Time	3. Principle LDT Toolkit and readings	4. Rationale EDUC 503 Part 4	5. Instructional Strategy (Supplative) EDUC 503 Part 5	6. Activity (Generative) EDUC 503 Part 5
		towards achieving their goals.			
Total Time	Approx 60 min	Include both synchronous and asynchronous learning time.			

List of Deliverables

Course

- Pre-Knowledge Check
- Immediate Evaluation
- Delayed Evaluation

Unit

- Unit 1 Storyboard of Learning Path
 - Video Description
- Unit 1 Learning Progress Map
- Unit 1 Task Checklist
- Unit 1 Synchronous Live Session Activity Design Document
- Unit 1 Job aid - How to Identify Personal Barriers
- Assessments for Unit 1

CMS - Capstone Home Page Organization Structure

- Introduction
- Abstract
- Course Unit Overview
- Assessment & Evaluation (with Video Presentation)
 - Immediate
 - Delayed
- Design Deliverables (for the course and for Unit 1)
- Reflection

Conclusion

As stated, this course focused on teaching mindset strategies on how to break the bamboo ceiling for female Asian immigrants who are employed in U.S. corporations and strive to advance their careers. Its goal is to raise awareness, shift mindsets, and, most importantly, guide individuals in setting personal goals and developing action plans to break through the barriers of the bamboo ceiling. To accomplish the organizational goal, the overall design of this course has implemented learning design theories, learning theories, and motivational theories in multiple folds, including five main considerations: course analysis, learner analysis, learning environment and media selection, assessment and evaluation, and equity and access. Most importantly, it has followed an instructional design paradigm, Merrill's instructional design model, including a thorough cognitive task analysis (CTA) process to ensure each step of the course design is strictly aligned with goals and meets the needs of different learning characteristics as well as equity and access for different groups of learners (Smith & Ragan, 2005). The course design process also placed a great focus on ensuring all components of learning development, implementation, maintenance, and improvement are aligned with learning objectives on a micro scale for each lesson module as well as with the organization's overall learning needs on a macro scale in the long run to support female Asian immigrants with their internal and external barriers so that the course is sustainable to serve the ultimate goals of achieving the expected impact to close the social and economic gaps and inequity.

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Appendix A

1. Mid-course Survey Questions

Questions Types	Questions	Evaluate Reaction or Learning
Likert Scale	How would you rate the quality of visuals (images, videos)?	Reaction
	How would you rate the course in terms of structure (logical, easy to follow, confusing)?	Learning
	How easy or difficult was it to understand the concepts?	Reaction and Learning
	How easy or difficult was it to navigate the LMS?	Reaction
	How would you describe quizzes in terms of difficulty level and range of topics covered?	Reaction and Learning
Open-Ended	Did you Google/research some topics while taking the course? Why?	Learning
	Did you skip any parts? Why?	Reaction and Learning
	What's working and what's not working for you. You may discuss anything, but please be specific.	Reaction and Learning
	Which topics do you wish were more in-depth? Why?	Reaction and Learning
	What is one thing that you enjoyed the most?	Reaction and Learning

2. Accountability Check-in Record Form

Areas to Check with the Learner		
Accountability Advisor:	Learner:	Week
Goals: Check in on any questions, concerns, offer support and direct the learner to resources as needed.		
1. Check if the learner has any question of any sorts.		
2. Check in or observe the following areas. Record response as detailed as possible.		
<ul style="list-style-type: none">● Learning experience (ask open questions and build off conversation as needed.)● Motivation check (ask time spent on the course, mood, and confidence)● Current difficulties or challenges● Use of resources● Progress of the course		

Appendix B

1. Evaluation Rubric for Discussion Thread Post

	Below Average - 1	Average - 2	Little Above Average - 3	Beyond Average - 4
Understanding of Concepts	The initial discussion post shows lack of understanding or misunderstanding of the concepts.	The initial discussion post shows a basic understanding of the concepts.	The initial discussion post shows in-depth understanding of the concepts with adequate explanation.	The initial discussion post shows in-depth understanding of the concepts and provides detailed elaboration of concepts.
Personal Relevance	Neither initial discussion post nor responses to peers address personal experience or understanding.	Initial discussion posts and responses to peers address somewhat personal experience or understanding.	Initial discussion posts and responses to peers address adequate personal experience or understanding.	Initial discussion posts and responses to peers address sufficient personal experience or understanding.
Engagement	Initial discussion post does not meet the length requirement. No responses to peers.	Initial discussion posts just meet the length requirement. Initial discussion responded to peers.	Initial discussion posts meet the length requirement and responses to peers show thoughts and care.	Initial discussion posts meet the length requirement and responses to peers show thoughts and build up further discussions.
Confident Level of Strategy Implementation	Initial discussion post implies learner's concerns applying the strategies.	Initial discussion post shows minimal concerns applying the strategies.	Initial discussion posts indicate optimism applying the strategies.	Initial discussion posts indicate optimism and high confidence applying the strategies.

2. End-of-course Survey Questions

Questions Types	Questions	Level(s) of Evaluation
Likert Scale	How would you rate your experience from the LMS?	Level 1, 2
	How would you rate your overall learning experience for this course?	Level 1, 2, 3, 4
	How would you rate your overall user experience for this course from the learning modules?	Level 1, 2
	How would you rate your experience learning with your cohort?	Level 1, 2
	How would you rate your experience with guest speaker sessions?	Level 1, 2
	How would you rate your experience with your accountability advisor?	Level 1, 2
	How would you rate your experience in the live mentor sessions?	Level 1, 2
Open-Ended	What is one thing that you enjoyed the most?	Level 1, 3, 4
	What did you wish to see in the course (and it wasn't there)?	Level 1, 2
	If you could change one specific thing, what would that be?	Level 1, 2
	What made you stick to the end?	Level 1, 2, 3, 4
	To whom would you recommend this course?	Level 1, 2, 3, 4
	What was the most useful thing that you have learned?	Level 2, 4
	Did the course make you think differently about a certain topic?	Level 2, 4
	Name one topic that you wish the course covers more about.	Level 2, 4
	Did you connect with other learners (sharing resources, ideas)? Why or why not?	Level 1, 2
	Were there any moments when you felt frustrated? Why?	Level 1, 2

	Will you continue to implement the strategies that you have started implementing within one month of course completion?	Level 1, 3, 4
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3. Questions for Written Reflections

(Regular questions only, without specific questions for relevant topics for the module)

1. What's your biggest take-away from this week's mentor session?
2. What epiphany do you have this week?
3. What strategies have you implemented this week?
4. Did you encounter any challenges, if not, what are some of your achievements this week? (Celebrate small wins!)

4. Exit Interview Questions

- What strategies from the course do you feel that have been working most effectively for you?
- Did you have any epiphanies?
- What are your major mindset shifts from what you have learnt from the course?
- What were some of your challenges?
- How confident are you with execution of your personal strategy implementation plan?
- How might you continue to apply what you have learnt from the course?