



## **Member to Instructor Progression in Skill Development: Designing a Level Guide for Pilates Training**

Mari Yang

Haaga-Helia University of Applied Sciences

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## Abstract

<b>Author</b> Mari Yang
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<p>The rapid growth of the Pilates industry in China has led to a lack of standardized practice and clear skill progression. These inconsistencies pose challenges in hiring qualified instructors, and maintaining consistent service quality to members. To address these issues, the objective of this development project was to develop a Level Guide in Pilates, aiming to establish clear levels in skill development and streamline the progression of members and instructors. The company commissioning this project is a Pilates start-up brand, Body Light, with an extensive background in the fitness industry in China through its parent company, Morefun Fitness. By integrating personalization and standardization, the Level Guide not only aimed to increase the number of quality instructors, but to also enhance service quality to members.</p> <p>To gain relevant understanding of the dynamics related to skill development and progression in the fitness industry, three theoretical areas were perceived as vital by the author: customer engagement, skill development and motivation. Studies on service quality, specifically the Scale for Fitness-Club Services, examined the integration of a personalized standardized service approach, where service quality was perceived as influencing loyalty formation. Nonlinear pedagogy and Constraints-Led Approach were examined frameworks in skill development and mastery, to understand skill development specific to exercise and integrate flexible learning into practice. Lastly, two motivational theories, Achievement-Goal Theory and Self-Determination Theory, were examined to gain insights on customers' motivations to exercise and the impact on loyalty.</p> <p>This development project used a qualitative constructive research method, where the focus is on creating a new reality in the form of a construct – in this case, a guide. Process benchmarking was conducted on four relevant level systems in the sports and recreation fields, to gain understanding into effective level design. Co-creation with the target user was implemented through a focus group comprising of five relevant Pilates members and instructors, providing valuable insights into practitioners' motivations and importance of skill progression. A further pilot test of three assessment classes was implemented, employing observation and probe method, to gain further insights and test the validity of teaching approaches. The diverse data collection methods ensured comprehensive insights in the development of the Level Guide, resulting in triangulation of data collection methods.</p> <p>The theoretical framework and research findings of this development project resulted in two constructs: the Body Light Level Guide and Level Structure. Working in unison, the two constructs not only facilitate clear progression in Pilates, but they enable a standardized, personalized approach to progressive pathways, level components and teaching. Although designed for the commissioning company Body Light, the Level Guide is applicable to the broader industry, aiming to standardize practice and integrate progression of members and instructors across the industry.</p>
<b>Keywords</b> Pilates, level guide, skill development, instructor progression, constructive research

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# 1 Introduction

Pilates has seen rapid growth in the Chinese market - with a high uptick in Pilates studios and instructor certifications. But with new opportunities, challenges arise, especially in an unregulated industry lacking standardized practice. Concurrently, this rapid growth of studios and instructor certifications has resulted in prominent inconsistencies in skill development and service quality in the industry. This challenge is further highlighted by the lack of integration between progression from member to instructor. The commissioning company, Body Light, has experienced the above challenges, resulting in difficulties hiring consistently qualified teachers, and providing consistent service quality to members, affecting satisfaction.

To counter these problems, the company has commissioned me to create a standardized Level Guide for Pilates, which enhances skill progression and simplifies the progression from member to instructor. Therefore, this development project covers the process of creating the Level Guide for Pilates. As a result, I have tailored this Level Guide specifically for Body Light, while ensuring its applicability in the Pilates industry in China.

This development project starts with explaining the objective and background to the development project, and then covers the theoretical framework of customer engagement, skill progression and motivation in fitness. Next, the research process and methods are explained, whereafter the empirical part of the development project are discussed: benchmarking, focus group, and pilot test through observation and probe method. Lastly, the development project covers the discussion around the formation of the Level Guide, as well as discussion on key findings, trustworthiness and further recommendations.

## 1.1 Objective of the development project

As of present, Pilates studios in China have been observed to typically have a singular focus – either they cater to members seeking to practice Pilates, or they exclusively offer training of Pilates instructors. This separation of services not only highlights the absence of clear skill development levels in Pilates training, but poses various challenges. For instance, members may face uncertainty when seeking to progress their Pilates skills, while members seeking to become certified Pilates instructors may need to change studios, causing disruption in their progressive pathway. The absence of an integrated level structure within Pilates has been highlighted by the commissioning company, Body Light. They have observed challenges in the recruitment of skilled instructors, where they are faced with a plethora of varying Pilates certifications, practice standards and teaching methods, making it difficult to hire based on consistent quality. Due to the inconsistency of

instructor quality, Body Light has not only faced challenges in hiring instructors, but also challenges in maintaining consistent service, resulting in unsatisfied customers.

The objective of this development project is to address the challenges faced by Body Light by creating a comprehensive Level Guide in Pilates. This Guide aims to improve skill development and transition to instructor, and increasing customer loyalty through standardized service quality. By doing so, it will map out a clear pathway from beginner to advanced Pilates member and certified Pilates instructor within the same studio. By establishing levels in Pilates, the development project aims to benefit not only the members, but also the instructors and the studio. Moreover, the key principles of this Level Guide will be designed to be applicable across Pilates studios irrespective of the brand, contributing to the industry as a whole.

## **1.2 Research questions**

The main objective of this development project is to address the existing challenges within the Pilates industry in China, particularly the absence of structured skill development levels, and transition from member to instructor. This will result in the creation of a new structural level guide for Body Light, facilitating integrated progressive pathways for both members and instructors. The research questions have been designed to address the specific problems being faced by Body Light. However, they can further benefit the industry as a whole, creating opportunity for expansion.

This development project aims at answering one fundamental research question:

### **How to enhance skill development in Pilates training and encourage members to become instructors?**

The above research question acts as the core leading element in this development project. However, the development project aims to simultaneously answer the following supporting questions:

**Q1:** How could levels in Pilates be designed to bridge the gap from member to instructor?

**Q2:** How could levels be designed to encourage flexibility in progression based on members' needs and experience level?

**Q3:** How could progressive pathways in Pilates contribute to customer satisfaction and loyalty?

## **1.3 Commissioning company**

The popularity of Pilates in China has witnessed a substantial surge in recent years, due to the increase in health awareness and disposable income of millennials and Gen Z. Participation of Yoga and Pilates are at 44 % and 29 % respectively, indicating a willingness to invest into fitness and

health. (Gu 2022, 358; Statista Consumer Insights Global, 2024). Observing an increase of Pilates-related companies in the recent years, the landscape reveals significant engagement, with participation rates of Yoga and Pilates being surprisingly high: members training once a week (30 %), several times a week (33 %) and daily (23 %) (Statista Global Consumer Survey, 2021).

This popularity highlights the need not only for maintaining consistent service quality across Pilates studios to ensure customer satisfaction (Xu et al. 2021, 14) but also recognizing the applicability of programming to facilitate differences in learning of individuals (Renshaw, Chow, Davids & Hammond 2010, 121) and the motivational nature of engaging in an activity, whether intrinsic or extrinsic (Ryan & Deci 2017, 14).

This development project is commissioned by the Pilates brand Body Light, under the parent company Morefun Fitness, which is a fitness operations company based in Sichuan, China. Since its foundation in 2015, Morefun Fitness has evolved from offering group classes to focusing their operations on personal training studios from 2020 onwards (Figure 1). The company now has over 30 fitness studios operating under two brands “Sweat Space” and “Shuhu” with over 100,000 registered customers in two Tier-2 and Tier-3 cities in Sichuan. (Yang 4 May 2023).

With the successful growth of the personal training studios, Morefun Fitness is now expanding their business to their third brand, Body Light, with a focus on Pilates training. Body Light is currently in its initial stages, comprising of one operational studio in Chengdu, China, acting mainly as an R&D center. The business strategy and design processes have already started to take place, and Body Light is expected to open 3-5 new studios by the end of 2024. (Yang 4 May 2023).

Morefun Fitness has a strong emphasis on service-oriented training, which is still lacking in the Chinese market. Yang (2023) outlines the three core drivers of the company:

- **Strategic organizational building:** Standards set in place for opening new studios, including methodology, marketing materials from the core brand and traffic acquisition toolkit
- **Connecting coaches and customers:** Combining user & coach behavior data, achievements and systematic operations, and data operations for traffic, to create a studio’s central operations
- **Brand Platform Marketing support:** Supporting sales, growth & user flow, brand and single studio service operations

With the expansion of Body Light, Morefun Fitness is determined to address existing challenges of talent acquisition with consistent teaching skills. To tackle this challenge, the company has commissioned me (the author) to create a level system incorporating the progressive transition from member to instructor. The aim is to encourage skill development internally, ensuring standardized consistency in instructor skills.

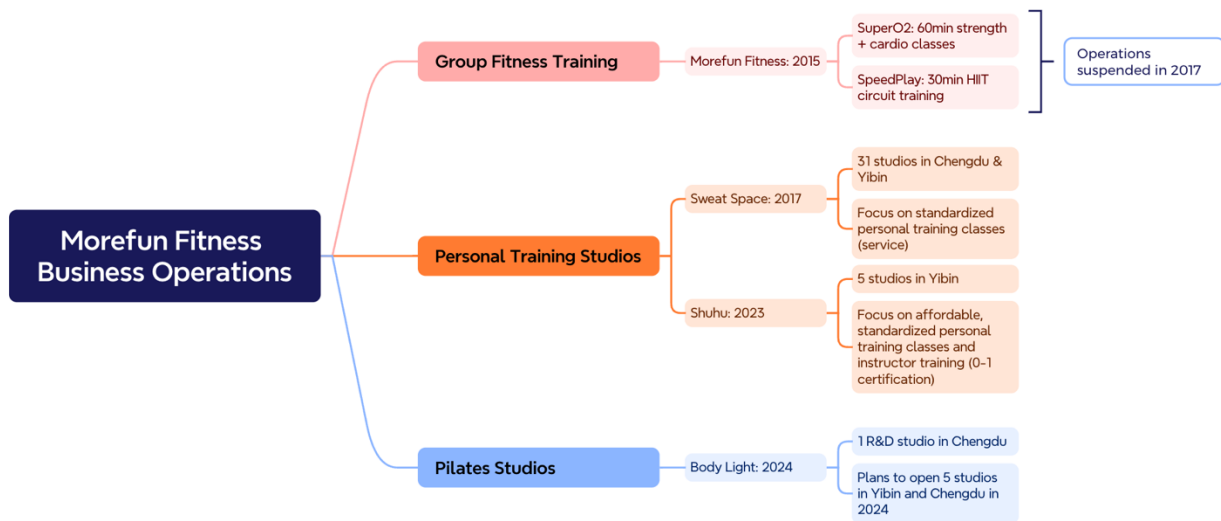


Figure 1. Morefun Fitness Organizational Map.

I will work closely on this development project with CEO of Morefun Fitness, Alex Yang, Head of Operations, Jiarui Jiang and Head of Pilates, Esther Tang. The internal members will guide the overall development project needs, goals and intended outcome, which will benefit the long-term operations strategy and market expansion. Through benchmarking, focus group and observation, I will be in close contact with the core members of Body Light, as well Pilates instructors and members throughout the phases.

I have a vested interest towards Morefun Fitness through my personal relationship as the spouse to the CEO, Alex Yang. From the foundation of the company in 2015, I have witnessed the company's growth. Although not officially employed at Morefun Fitness, I am deeply involved in various areas, such as giving strategic advice and moral support, helping in doing research, testing the operations as a customer, and now undertaking this development project for Body Light. Due to the nature of my involvement with the company, I have access to privileged company information and direct contact with the CEO and other team members. This facilitates a cooperative and agile approach to my work, reducing issues of hierarchy, chain-of-conduct and bureaucracy. I am personally committed to the success of the company, giving significance to this development project. However, acknowledging the potential risks in my relationship to the company, such as personal bias and conflict of interest, is also important. I am committed to reduce these risks through high standards of transparency and impartiality in the development project, to ensure my contributions are valuable and ethical.

In order to avoid confusion in the context of this development project, I will be using 'Body Light' in reference to the commissioning company, as it is the relevant trademarked brand name of Pilates training of Morefun Fitness.



## **2 Exploring fitness dynamics: loyalty, skill development and motivation**

With the dynamic growth of the fitness industry in China, customer retention and loyalty are key performance indicators of success for gym managers, with the focal point being on the customer (Xu et al. 2021, 1). Recognizing that customers are individuals with varying needs, experience levels, motivations and progressive pathways, highlights the need for a nuanced approach in delivering services. As both Pilates members and instructors are the target users of the Level Guide, adopting a customer-centric approach is important. Thus, understanding concepts of service quality, customer satisfaction and customer loyalty are crucial in designing the right approach to meet the unique needs of the customer. Furthermore, understanding skill development and motivation within the fitness industry facilitates incorporation of best practices into the Level Guide, further enhancing individual progress.

In essence, the three theoretical areas of customer engagement, skill development and motivation are vital components in facilitating expertise and progression in the Pilates Level Guide, helping members and instructors to navigate skill development with clarity. The theories in this chapter also lay an existing theoretical base to which this constructive research can reflect and build upon.

### **2.1 The dynamics of customer engagement and loyalty in fitness**

To design a level guide in Pilates for members and instructors, we must first understand what constitutes service quality, how to ensure customer satisfaction, and enhance customer loyalty in the fitness service industry. Understanding the areas that affect customer satisfaction and retention in a service, specifically in the fitness service industry, contribute to better designing the level guide to reflect a positive customer experience and service quality for members and instructors in their skill development.

#### **2.1.1 Service quality, customer satisfaction and loyalty**

With the growing fitness industry in China, perceived service quality and customer satisfaction have become cornerstones for fitness center managers in improving customer retention, loyalty and market share (Xu et al. 2021, 1). Achieving customer retention and loyalty involves understanding the customers' decision-making process, where measuring customer satisfaction and service quality perceptions determine their experiences and sentiments (Tsitskari, Antoniadis, & Costa 2014, 514-515). Service quality has been defined as Parasuraman, Zeithaml and Berry (1988, 16) as "a global judgement, or attitude, relating to the superiority of the service", highlighting the comparison between consumer expectations and performance outcomes.

Parasuraman et al.'s (1988, 23) SERVQUAL is one of the most popular service quality measurement models developed, dividing customer service perceptions into five categories: tangibility, reliability, responsiveness, assurance and empathy. While SERVQUAL is considered to be applicable to a wide set of businesses, it has also been criticized as too general, lacking specificity in fitness clubs improved operational effect (Lam, Zhang & Jensen 2005, 82), thus highlighting the need for further research in understanding the core factors influencing customer satisfaction in the industry (Huang & Kim 2023, 15). Subsequently, service quality models in the fitness industry have been developed, proposing different service quality dimensions. Most service quality models in the fitness industry fall within six main groups: personnel, physical environment, social environment, program, supporting services and outcome. (Polyakova & Mirza 2016, 370).

Xu et al. (2021, 2) further argue that fitness clubs specifically in the Chinese market exhibit unique characteristics, both culturally and industry-specific, to which SERVQUAL is not applicable. Instead of selling goods, fitness clubs sell experiences, with an emphasis on personalization of services due to market competition and changing customer demands (Xu et al. 2021, 2). Xu et al. (2021, 11) have developed a new service quality scale specific to Chinese fitness clubs, the Scale for Fitness-Club Services (SFCS). SFCS focuses on six factors: service recovery, service assurance, facility function, program operations, staff performance and instructor quality, of which the former two are newly proposed factors that SERVQUAL lacks, highlighting the ability to combine standardization and customization within a single model (Xu et al. 2021, 14). Service quality, as highlighted by Xu et al. (2021, 1), is essential for customer retention, a key indicator of success in the fitness industry. Service quality is widely accepted as an antecedent of customer satisfaction (Avourdiadou & Theodorakis 2014, 421), which in turn influences consumers' future intentions in the fitness industry (Trail, Anderson, & Fink 2010, 107). Therefore, there is a distinct relationship between service quality and customer satisfaction, impacting overall customer loyalty (Avourdiadou & Theodorakis 2014, 421).

Interestingly, various studies on the fitness industry reveal a consistent correlation between the employee quality aspect of service quality and customer satisfaction. Specifically, a significant link between the quality of employees and their interactions with customers, and the overall satisfaction and psychological commitment of the customer has been found, with employees identified as the key in member satisfaction and commitment (Tsitskari, Antoniadis, & Costa 2014, 518).

Xu et al. (2021, 8) further validate the importance of employee quality in their SFCS model on the Chinese market, where staff performance and instructor quality were found to be vital areas contributing to customer satisfaction in fitness clubs. This in turn means that instructors' education, knowledge and skills can be seen as the core competitive advantage to a fitness club, with

customers paying attention not only to the qualifications of an instructor, but also to the professional characteristics, including responsibility, reliability and accountability (Xu et al. 2021, 12). In the context of the sports service industry, assurance in service quality, including the quality of instructors' skills, knowledge, attitudes and service expertise, has the greatest influence on customer satisfaction (Huang & Kim 2023, 15-16). This reinforces the need of the development project, emphasizing the significance of training skilled employees, "in order to succeed in customer retention" (Tsitskari, Antoniadis, & Costa 2014, 514).

A notable relationship exists between service quality, customer satisfaction and loyalty in the fitness industry, where both service quality and customer satisfaction strengthen customer loyalty (Avourdiadou & Theodorakis 2014, 421). Li and Petrick (2010, 214-217) observed varying findings of antecedents of customer loyalty, with quality and satisfaction acting in different roles, such as mediators, moderators or indirect antecedents. In the growing landscape of the fitness industry in China, Gu's (2022, 364-365) study observes service quality as a key moderator of customer delight, satisfaction and ultimately loyalty. The research emphasizes the role of reputation and image as additional moderators in the dynamics between customer satisfaction and loyalty (Gu 2022, 364-365). Furthermore, in offline sports services, Huang and Kim (2023, 18) highlight trust between the service provider and customer to be the main driver of loyalty, thus encouraging service providers to prioritize aspects like dependability, competency and integrity of the offerings to build and maintain trust.

The intricate interplay between service quality, customer satisfaction and loyalty within the Chinese fitness industry highlights the need for customized approaches, fostering customer satisfaction through service quality, specifically employee quality, and ensuring a balanced approach in the interplay of all three factors (Xu et al. 2021, 1; Huang & Kim 2023, 18; Gu 2022, 364-365). To gain a more comprehensive understanding of customer loyalty formation in the fitness industry, the next chapter highlights the integration of customer engagement and its impact on service quality, customer satisfaction, and loyalty.

### **2.1.2 Dynamics of experience**

The relationship between service quality, customer satisfaction and customer loyalty has clearly been established, however, it is essential to acknowledge that customer loyalty can exhibit variations based on the customer's level of experience, differing between novice and experienced customers (Dagger & O'Brien 2010, 426). Furthermore, the perceived service quality will differ based on a customer's experience level, highlighting the importance of customer segmentation based on their experience level (Dagger & Sweeney 2007, 34). Consequently, the dynamics of customer

experience and involvement will be observed to bring more light to customer retention and loyalty in the fitness industry.

A customer's novice or experienced status shapes loyalty, influences service quality perception, and impacts customers satisfaction (Dagger & Sweeney 2007, 32; Dagger & O'Brien 2010, 1542-1543). The three benefits influencing perception on trust, commitment and satisfaction include confidence benefits (confidence in the expectations of the service encounter); social benefits (the relationships within the service encounter) and special treatment benefits (personalized and exclusive perks for loyal customers) (Dagger & O'Brien, 2010, 1536-1537; Gwinner, Gremler, & Bitner 1998, 109-110).

For novice customers, loyalty's antecedent is primarily satisfaction, driven by confidence benefits, while experienced customers showcase a decline in satisfaction as an antecedent to loyalty (Dagger & O'Brien 2010, 1542-1543). Dagger and Sweeney's (2007, 32-34) study on service quality perceptions further validates this distinction, in which novice customers prioritize search attributes (tangibles) in their service quality perception, forming a direct link between satisfaction and loyalty. Experienced customers form loyalty predominantly through trust and commitment, influenced by social and special treatment benefits, contrasting to novices who perceive special treatment negatively as an attempt to "buy" loyalty (Dagger & O'Brien 2010, 1542-1543). Notably, there is a decrease in satisfaction's impact on loyalty, with an increased emphasis on experience and outcome for experienced customers (Dagger & Sweeney 2007, 32-34).

Although prior research has examined the link between a customer's experience level, service quality, customer satisfaction and loyalty, Avourdiadou and Theodorakis (2014, 8-9) argue that these studies do not adequately address the fitness industry. Yet, similar trends in customer experience levels are also observed in the fitness industry (Avourdiadou & Theodorakis 2014, 8; Magaz-González, Sahelices-Pinto, Mendaña-Cuervo, & García-Tascón 2023, 1403-1405).

In the specific context of fitness centers, customer satisfaction serves as the main indicator of loyalty in novice customers, while its significance decreases for experienced customers. In contrast, service quality drives loyalty among experienced users. (Avourdiadou & Theodorakis 2014, 8). Novice customers rely heavily on tangibles such as physical facility, cleanliness, appearance and behavior of personnel, due to minimal information and experience. Conversely, experienced customers, already familiar with the company, can boost loyalty through special treatment benefits, including personalized recognition, exclusive services and special pricing (Avourdiadou & Theodorakis 2014, 8-9; Gwinner, Gremler, & Bitner 1998, 109-110).

Similarly, in sport event participation, a participant's experience level has a distinct impact on their future intentions. Novice participants emphasize a multi-faceted approach, relying on a combination of quality, perceived value and satisfaction. Experienced participants follow a more predictable pattern of loyalty formation, highlighting the role of past experiences, staff quality and event-specific factors influencing quality, and ultimately loyalty. (Magaz-González, Sahelices-Pinto, Mendaña-Cuervo, & García-Tascón 2023, 1403-1405).

The nature of service in the fitness industry is unique, as it involves particular participation of customers, and requires customers to be physically present and exercise actively to be considered successful (Chiu, Kwag & Bae 2015, 631). This is why visit frequency and membership longevity of a customer also play a role in customer satisfaction and loyalty in fitness centers (Ferrand, Robinson & Valette-Florence 2010, 99; Sobreiro, Guedes-Carvalho, Santos, Pinheiro & Gonçalves 2021, 7-8). The two most reliable variables observed affecting user drop out (and conversely retention), were frequency of attendance and membership longevity. When combined with general satisfaction, a membership between one to two years had a higher prediction on future intentions, i.e. membership retention. (Sobreiro et al. 2021, 7-8). A higher visit frequency resulted in decreased dropout rates, therefore highlighting the importance of attendance and membership longevity on satisfaction and membership retention (Sobreiro et al. 2021, 99).

Ferrand et al. (2010, 99) have observed similar findings in their study on variables influencing fitness membership repurchase, where an increased frequency of attendance acts as a mediatory variable, influencing membership renewals positively, the antecedent to attendance being customer satisfaction. They further argue that the frequency of attendance can be seen as a form of behavioral loyalty. Therefore, the assumption that consumption frequency and length of membership (i.e. a more experienced member) will impact positively on the loyalty behaviors of the customer can be made.

Active customer involvement is a characteristic of fitness services, with frequency and membership longevity shaping customer satisfaction and loyalty, in turn aligning with the notion that consistent attendance reflects behavioral loyalty (Chiu et al. 2015, 631; Ferrand et al. 2010, 99; Sobreiro et al. 2021, 7-8). When examining the impact of experience levels on loyalty, novices form a direct link through satisfaction, particularly confidence benefits, whereas experienced customers prioritize trust and commitment over satisfaction (Dagger & O'Brien 2010, 1542-1543; Dagger & Sweeney 2007, 32-34). These insights highlight the importance of experience levels and involvement in the interplay with satisfaction and loyalty in the fitness context, promoting segmentation of customers for tailored services (Dagger & Sweeney 2007, 34; Huang & Kim 2023, 18). The findings suggest

that by facilitating training levels based on experience, skill and involvement, Body Light has the potential to enhance service quality and customer satisfaction and foster stronger customer loyalty.

## **2.2 Skill acquisition and development**

As the aim of this development project is to facilitate skill development in Pilates and create a standardized approach to each level, the development of adults should be viewed from various perspectives. Tang (19 September 2023) has observed a diverse range of experience levels among both members and prospective instructors who come to the Body Light studio, highlighting the necessity to apply a flexible and adaptive approach within the level guide. Given the limited scope of research on skill development within the Pilates, the theory on skill development covers the scope of fitness, including sports and physical activity.

### **2.2.1 Constraints-led approach in skill development**

In Pilates, a total of about 50 simple moves are used in repetition to create muscle exertion, where the movements can be modified to provide gentle strength training (i.e. for beginners), or vigorous workouts (i.e. for athletes) (Kloubec 2011, 61). This perspective places Pilates within the realm of sport performance, physical exercise and movement skills. When learning any sports skill, a multitude of factors must be taken into account, as individuals are unique, with differences in characteristics. More traditionally, practitioners (e.g., coaches, instructors) have utilized repetitive demonstration of a movement in providing the learner with a “visual model”, to help the learner to recreate the movement (i.e., task). (Lee, Chow, Komar, Tan, & Button 2014, 1).

This is where the constraints-led approach (CLA) is impactful, as it suggests that training is divided into three main constraints; performer, environment, and task, where the learner naturally adapts to find efficient movement solutions (Figure 2). Constraints have been defined as limits which influence the emergence of behavior from a movement system (e.g., learner) as they strive to establish a stable approach to tasks. (Renshaw et al. 2010, 121-122). Identifying potential constraints that influence performance is important for the learner, as is clearly distinguishing the constraints they are unable to control, and ones they can manipulate in their practice (Renshaw & Chow 2019, 109).

The constraints-led approach enables coaches to set practice conditions, fostering varied movement solutions and the avoidance of a “one size fits all” approach. However, coach guidance still remains essential in ensuring proper technique. (Verhoeff, Millar, Oldham & Cronin 2020, 18). The ability to adapt and modify movements to suit the learner is relevant to Pilates, observed particularly through contemporary Pilates. In this approach, modified moves are taught as separate

exercises to address deficiencies in strength, flexibility or co-ordination, contributing to public appeal of fostering creativity. (Lewitt, McPherson & Stevenson 2019, 948).

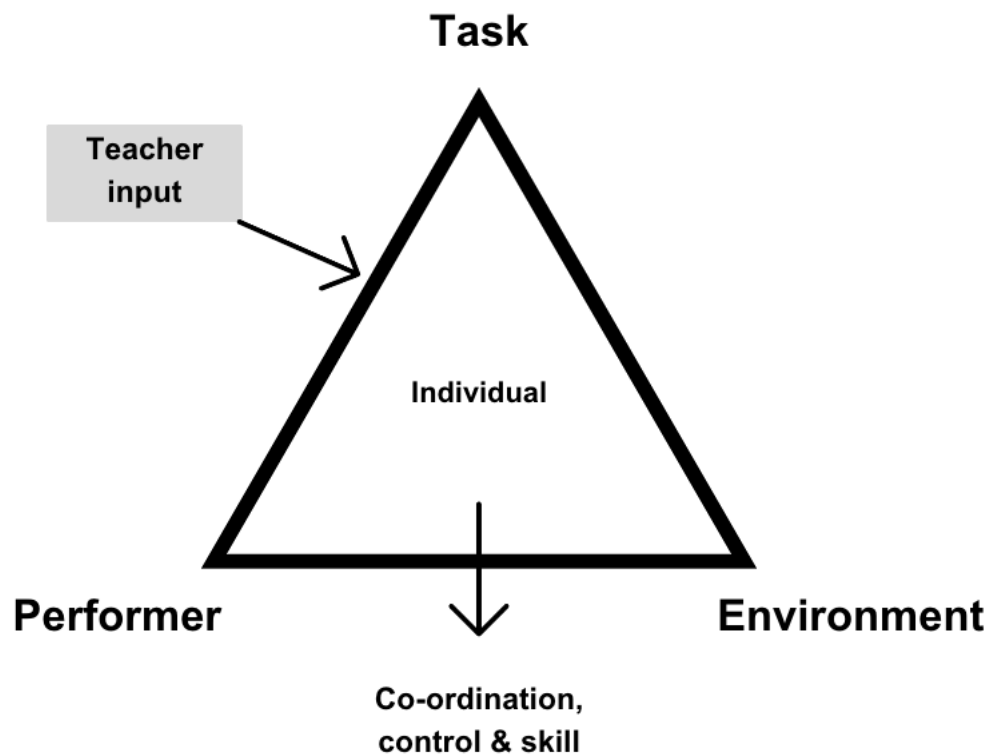


Figure 2. Interacting constraints that act to shape behavior (adapted from Renshaw et. al 2010, 121).

Performer constraints encompass the unique attributes of an individual, including physical, physiological, cognitive and emotional. These attributes influence the individual's movement tasks, performance styles and problem-solving strategies, and should be viewed as resources into individual-specific adaptations instead of as negatively. (Renshaw et al., 2010, 121). In addressing physical attributes of performer constraints, such as strength or flexibility, coaches can modify a movement to target weaknesses, for example, emphasizing the use of back muscles when the athlete favors the use of their knees (Verhoeff et al. 2020, 18). Intentions of an individual may constitute the most impactful attribute, as it influences the goals and information processing, therefore shaping the learner's responsiveness and openness to alternatives. Furthermore, psychological factors such as emotion and confidence should be considered when designing learning environments. The aim should be to foster motivational climates of trying, i.e. "have a go", rather than avoiding showing incompetence within a class setting. (Renshaw & Chow 2019, 109-110).

Environment constraints consists of two components: physical and socio-cultural constraints (Renshaw & Chow 2019, 110). Physical constraints cover aspects of the learning surroundings, such as weather, lighting, gravity and noise levels (Renshaw et al. 2010, 122). Nonphysical, or socio-cultural constraints, include spectators or other performers, peer groups, societal attitudes, expectations (both from the coach and cultural), organizational values, support and access to facilities (Davids, Chow & Shuttleworth 2005, 20; Renshaw & Chow 2019, 110; Verhoeff et al. 2020, 18). These constraints have a significant influence in the learning experience and skill development of learners, and teaching using the CLA should encompass the design of a learning environment that facilitates effective exploration (Komar, Potdevinb, Chollet & Seifert 2019, 142; Renshaw et al. 2010, 121).

Lastly, task constraints cover specific objectives, rules, equipment, implements and boundaries of an activity. Task constraints, linked to movement faults, provide coaches with tools to shape movements, allowing manipulation to influence learners in approaching and performing in a specific manner, for example adjusting equipment or changing court dimensions. (Renshaw et al. 2010, 122; Verhoeff et al. 2020, 18). In the context of Pilates, task constraint manipulation could be changing the resistance on a reformer based on individual strength (Kloubec 2011,61).

Within the interacting constraints of the CLA, teacher input and guidance are essential contributions leading to skill development. The role of the teacher (or coach) is the intentional manipulation of the constraints to facilitate functional movement solutions in the process of skill execution. (Hamilton, Smith & Brandon 2020, 131; Renshaw et al. 2010, 122). By manipulating constraints in training, learners can develop adaptable skills, and adjust to different conditions (National Academy of Sports Medicine (NASM), 30 November 2021, min. 12:50-13:30). However, the manipulation of constraints requires the teacher to possess a mastery of the activity, as to ensure learners are led effectively towards coordination and decision-making (Renshaw et al. 2010, 122).

The constraints-led approach provides a valuable framework for understanding skill development through constraints and the effect of teacher input through manipulation, therein applicable to skill development in Pilates training. To further progress in skill development and develop training plans accommodating to goal-directed behavior, the nonlinear approach will be examined.

### **2.2.2 Nonlinear pedagogy in skill development**

While CLA promotes the understanding of interacting constraints' impact on goal-directed behavior, it does not take into account how to design learning programs (Chow 2013, 471). This is where adopting a nonlinear approach becomes valuable. Nonlinear pedagogy (NLP) views each individual as a system with nonlinear attributes, utilizing the degrees of freedom a body has to solve



movement issues, therefore promoting a variety of opportunities in exploring different movement patterns (Davids et al. 2005, 21). This approach provides key principles on assessing performance, structuring practices, and delivering effective feedback and instructions. It recognizes the nonlinear nature of humans, highlighting the need to create learning experiences that are representative and supportive of individual learners, promoting innovative and adaptive performance behaviors (Correia et al. 2019, 117-118; Renshaw et al. 2010, 128).

The practice task design in physical activity should be coherent, innovative and challenging to promote modified behaviors of learners. In creating a nonlinear structured activity program, the aim is to: create various opportunities for learners to develop their skills in the performance setting, and enable learners to engage in specialized learning to improve their expertise in the area. (Rudd, Pesce, Strafford & Davids 2020, 4). The nonlinear pedagogy conceptual framework (Figure 3) builds on the three constraints of CLA (where the learner lies), incorporating principles of representativeness, constraints manipulation, attentional focus, functional variability, and maintaining relevant information-movement coupling. These design principles guide the delivery of key principles through practice, instructions and feedback, ultimately enabling goal-directed behavior to emerge. (Chow et al. 2021, 232). To support the framework, Chow et al. (2011,191) have identified behaviors of nonlinearity in sport, including; observing non-proportionate changes in behavioral outcomes, a single cause can manifest multiple behavioral outcomes, parametric control of constraints to promote preferred behaviors, and encouraging modified movement exploration through varied task designs.

The design of representative learning environments involves understanding the information that guides performance behaviors, leading actions to be in line with intended task goals (Rudd et al. 2020, 4-5). Representative design aligns task constraints with performance context to ensure generalized behaviors, thus fostering adaptability through information-movement couplings (Lee et al. 2014, 2). For educators (coaches) engaging in representative design, the focus should be on identifying key information sources to enable learners to coordinate actions, and reflect real-world situation for behaviors to be applied broadly (Correia et al. 2019, 124; Renshaw et al. 2010, 123). The aim should be fostering an information-rich environment, encouraging learners to explore-discover-adapt (Rudd et al. 2020, 4-5).

In NLP, where movement is concerned, information is seen as a major constraint. This is why practice structure should emphasize combining information and movement together, instead of separately, to ensure learners associate movement with received information. (Davids et al. 2005, 25).

Information-movement coupling, encompassing the circular interplay between perception and action, is therefore pivotal in the development of goal-directed behaviors (Correia et al. 2019, 118).

Ecological psychology further emphasizes that learning movement involves continuous adjustment of actions based on perceptions in learning environment, not merely memorizing information (Rudd et al. 2020, 3). In practice design, task simplification is a method to help learners in tackling complex moves, whilst ensuring information and movement are connected. In Pilates, task simplification is exemplified with jumpboard moves on the reformer; starting with basic jumps off the board, and advancing to more complex moves, including foot switching at the top of the jump. Through manipulation of constraints in the practice, such as level of resistance, task simplification can be utilized in sport, including Pilates. (Pilatesology 16 October 2022, min.0:05-0:25; Renshaw et al. 2010, 124).

Supporting many of the other design variables in the framework, constraints manipulation is a key principle in NLP, involving the manipulation of the three key constraints (task, environment, performer) (Chow et al. 2021, 234). Constraints manipulation highlights nonlinearity in NLP, establishing boundaries in facilitating exploration of movement variability for the learner (Lee et al. 2014, 2; Rudd et al. 2020, 4). The interaction of the key constraints goes beyond mere boundaries, facilitating self-organization of coordination in information and performance contexts (Chow 2013, 472). Therefore, effective learning design should incorporate the interaction of these manipulated boundaries (Correia et al. 2019, 118).

Movement variability, often seen as dysfunctional, is crucial in NLP, where slight variations are considered part of the movement process, enhancing the acquisition of coordination (i.e. functional variability) (Chow 2013, 472). During practice, learners undergo behavioral change, adapting movement patterns to achieve consistent outcomes, whilst navigating performance-related constraints (Renshaw et al. 2010, 124). Encouraging functional variability in movement during practice facilitates exploration in learners, and coaches should refrain from giving movement correction. As the movement stabilizes, coaches should intentionally aim to perturb the movement through constraints manipulation, challenging learners and fostering further skill development. (Rudd et al. 2020, 5).

The last design element of the conceptual framework of NLP is attentional focus, where an external focus of attention has been noted to be beneficial to instructions and feedback, as it reduces the conscious control of movement (internal focus) (Chow 2013, 472-473; Davids et al. 2005, 27). An external attentional focus emphasizes environmental effects, where instructions given do not solve problems, but instead focus on the outcome (Chow, Komar, Davids & Tan 2021, 235; Davids et al. 2005, 27). A coach's aim is to create an external attentional focus in their instructions to the learner to facilitate exploration and discovery at an implicit level (Rudd, Pesce, Strafford & Davids 2020, 5).

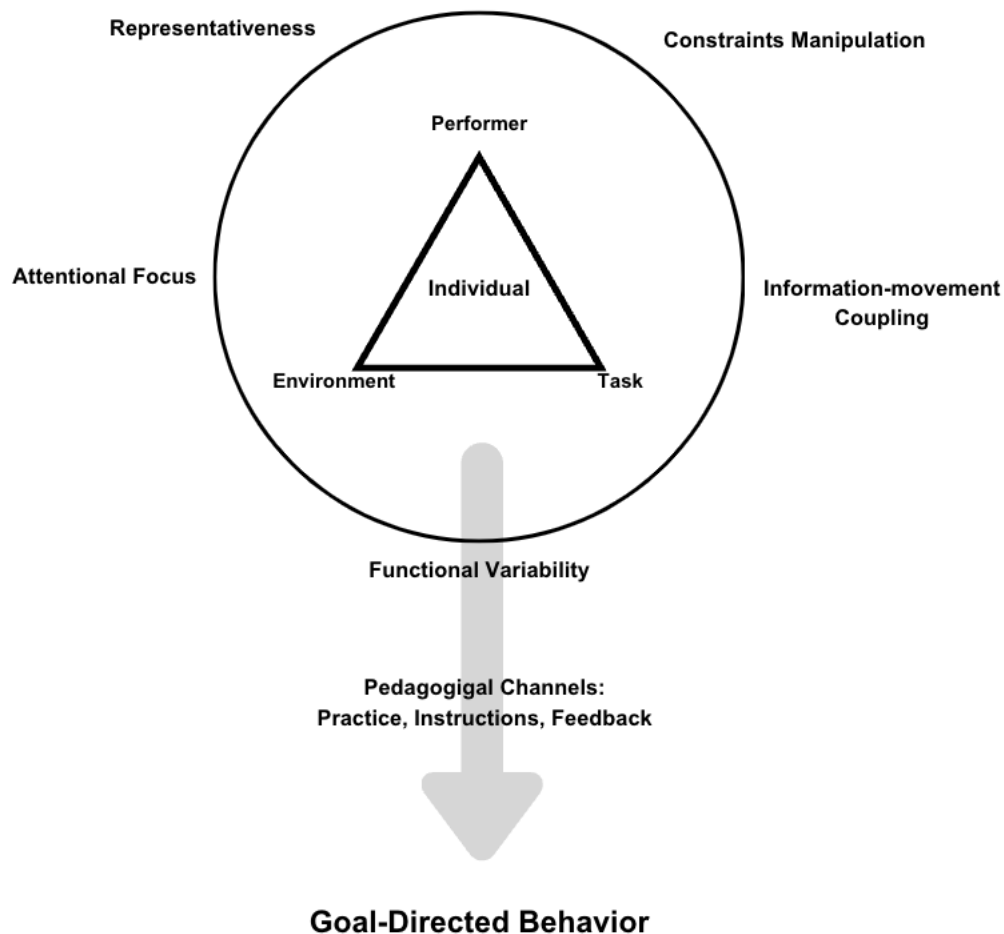


Figure 3. Conceptual framework of nonlinear pedagogy (adapted from Chow 2013, 474).

Through the incorporation of the three key constraints (task, performer, environment), the aforementioned design principles can be applied and delivered through micro-structure of practice, instructions and feedback (Chow 2013, 473). In NLP, both instructions and feedback act as informational constraints, guiding the learner through an external attentional focus, thus minimizing prescriptive elements (Correia, Carvalho, Araújo, Pereira & Davids 2019, 125; Rudd et al. 2020, 5). By utilizing task constraints, NLP challenges learners to adapt their behaviors, fostering exploration and adaptation. This in turn ultimately shapes the goal-directed behaviors of the learner. (Chow 2013, 473; Correia et al. 2019, 125).

### 2.3 Motivation in physical activity

Finally, to ensure the progress and skill development of members and instructors within the Pilates levels, it's crucial to comprehend how motivation influences an individual's advancement through different levels. Two of the more researched theories of motivation are Achievement Goal Theory

(AGT) and Self-Determination Theory (SDT), which will be discussed. These two theories have several similarities and differences, and should be seen as complementary theories rather than contradicting ones. Both SDT and AGT are social cognitive motivational theories, emphasizing that an individual's perception of an activity influences the quality of engagement within the activity. Although both highlighting perceived competence, AGT focuses more on the involvement of task and ego, whereas SDT explores the fulfilment of psychological needs through intrinsic motivation. (Ntoumanis 2001, 400-401).

### **2.3.1 Achievement goal theory**

The Achievement Goal Theory (AGT) by Nicholls (1984), is a psychological framework that explores reasons behind an individual's engagement in achievement-based activities, specifically during challenges and setbacks (Senko 2016, 76). It examines the two goal orientations that influence an individual's definition of success, constructions of competence and how they impact the individual's motivation, behavior and performance. Task orientation (mastery goals) focuses on mastery of a task and self-improvement, whereas performance goals highlight the difference between an individual's performance to others. (Sit & Lindner 2015, 606).

Further studies on AGT (Elliot & McGregor 2001, 502) have proposed an additional dimension of approach-avoidance in the form of a 2x2 achievement goal framework (Figure 4), where individuals inherently strive to demonstrate their competence while avoiding the display of incompetence in any given achievement context (Wang, Morin, Liu & Chian 2016, 13). In this framework, the key achievement goal construct is competence: its definition and valence. Competence is defined by evaluation criteria, either based on one's previous performance (mastery), or comparison to others' performance (performance). Another characteristic of competence is its valence: either positive (approach) or negative (avoidance). These constitute comprehensive competence-based goals, which can be adapted to different environments and settings. (Wang, Biddle & Elliot 2007, 148-149). The four goals of this framework are: mastery goals (mastery of a task), mastery-avoidance goals (avoiding poor performance in task demands or one's own performance), performance goals (outperforming others), and performance-avoidance goals (avoidance of inferior performance compared to others) (Mascret, Elliot & Cury 2015, 8). The framework does not assume mutual exclusivity between these goals, and individuals may exhibit variability between these four dimensions (Wang et al. 2016, 14).

Mastery goals, or mastery-approach goals (MAp), focus on the achievement of task-based competence, which is purely intrapersonal. Objectives are often related to skill development and mastery of a task, emphasizing the value of effort and self-development over the final outcome. Individuals who are motivated by MAp do not feel the need to compare themselves to others or specific

standards; instead, they view their abilities as changeable and subject to improvement through effort. This goal orientation suggests that working hard and striving for self-development are in itself a form of success. (Kuczek 2013, 129; Wang et al. 2016, 14).

		<b>Competence Definition</b>	
		Intrapersonal (mastery)	Normative (performance)
<b>Competence Valence</b>	Positive (aiming for success)	Mastery-approach goal (MAp)	Performance-approach goal (PAp)
	Negative (avoiding failure)	Mastery-avoidance goal (MAv)	Performance-avoidance goal (PAv)

Figure 4. The 2x2 Achievement Goal Framework (adapted from Elliot & McGregor 2001, 502).

Mastery-avoidance goals (MAv), on the other hand, focus on the avoidance of one's intrapersonal task-based incompetence, therefore aiming to avoid *not* learning or completing a task (Wang et al. 2016, 14). In a linear sequence of similar tasks, a natural learning progression takes place from task to task, however this is disrupted when pursuing MAv goals. As MAv is centered around avoiding incompetence, it may disrupt the linear learning effect, as the negative outcomes serve as an internal benchmark, which cannot be changed in multiple-task contexts. (Van Yperen, Elliot & Anseel 2009, 934).

Performance-approach goals (PAp), or also known as ego orientation, focuses on the comparison of one's performance against others. An individual inclined towards PAp tends to associate their perception of ability with social comparisons, where success is defined as outperforming others. (Sit & Lindner 2015, 606). PAp equates effort and talent, aiming for maximum capability through minimal effort. Individual inhibiting PAp prioritize surpassing others, and may undervalue personal development, as they believe talent is fixed, making attempts to improve seem pointless. (Kuczek 2013, 129).

Performance-avoidance goals (PAv) focuses on normative incompetence, i.e. aiming at not performing poorly in comparison to others (Wang et al. 2007, 149). As performance-avoidance focuses on the negative aspect of valence, it has been linked to fear-driven performance of failing,

low self-evaluation, anxiety and low performance, which drives the motivation of the individual (Elliott & McGregor 2001, 515).

AGT is highly applicable in the field of physical activity, including sport and fitness. In a CrossFit study applying AGT, findings reveal motivation goal variabilities between gender and membership time. Men were predominantly more performance-oriented (PAp), whereas women were master-avoidant in their goals (MAv). Additionally, members with less than six months of experience exhibited higher mastery-based goals (MAv and MAp), than those with over six months of experience. (Partridge, Knapp & Massengale 2014, 1718). Furthermore, a study done on AGT's impact on youth sport participation suggests a high adaptation of task orientation, associated with intrinsic motives such as skill, excitement, challenge and fit. Therefore, there is a tendency to pursue mastery and skill-related goals, aligning with mastery development in sports (Sit & Lindner 2015, 614).

### **2.3.2 Self-determination theory**

Self-Determination Theory (SDT) is a psychological theory on human behavior and personality development, often used to understand motivation specifically in physical activity (exercise, sport, physical education) (Raposo, Caldeira, Batalau, Araújo & Silva 2020, 681; Ryan & Deci, 2017, 3). SDT suggests that humans have psychological needs for autonomy, competence and relatedness, that drive their behavior and quality of motivation. There are three types of motivation in SDT: intrinsic (engaging in an activity for its inherent enjoyment), extrinsic (engaging in an activity due to external rewards or outcomes), and amotivation (having no motivation to engage). (Ryan & Deci 2017, 14-16).

Motivation behavior in SDT is driven by three main psychological needs: autonomy, competence and relatedness. Autonomy drives our motivation, as it's a sense of having interest, enjoyment and/or value for something, driven by external factors, such as rewards or punishments. Competence refers to the feeling of confidence and effectiveness in relation to the activity, and is best facilitated through structured environments, such as positive feedback or challenges. And lastly, relatedness is a feeling of being cared for, caring for others, and a sense of belonging, facilitated through respect and caring. In order to be autonomously motivated, an individual needs to fulfil the feelings of competence and relatedness, resulting in positive outcomes. (The Brainwaves Video Anthology 17 October 2017, min. 1:40-4:30; Ryan & Deci 2020, 1).

Intrinsic motivation is rooted in the connection between the individual and activities. In general, activities and events that support a sense of autonomy, competence and relatedness tend to enhance intrinsic motivation, whereas those that have a detrimental impact, will in turn erode this motivation. Intrinsically motivated behaviors, such as play, exploration and curiosity derive satisfaction

intrinsically, instead of relying on external incentives. Conditions in the social environment can influence feelings of autonomy and competence. For example, a controlling coach may diminish an individual's feel of enjoyment in a sport, despite the individual's inherent interest in the sport. (Ryan, Williams, Patrick & Deci 2009, 109-111; Ryan & Deci, 2020, 2). Interestingly, intrinsic motivation has been found to align with NLP and consequently CLA (section 3.2). A study done on the impact of NLP and motivation in physical education revealed that utilizing constraints and movement variability tailored to individual skills and characteristics, facilitated perceptions of autonomy, competence and enjoyment, resulting in intrinsic motivation of students (Moy, Renshaw & Davids 2016, 530).

Conversely, extrinsic motivation involves engaging in an activity with the primary aim of achieving an external outcome that is distinct from the activity itself. Numerous sport and exercise activities are primarily driven by extrinsic motivation, with the majority of participants engaging in these activities to achieve specific benefits or rewards (e.g., health or looks) rather than deriving intrinsic enjoyment from the activity itself. Extrinsic motivation has underlying variations of regulation, influencing how deeply an individual internalized the importance of an activity, therefore impacting their motivation. (Ryan & Deci 2017, 14-15; 491).

In the realm of physical activity, motivation often represents a blend of both intrinsic and extrinsic factors. To illustrate, an individual might select an exercise they genuinely enjoy (intrinsic motivation) while pursuing this activity with the external goal of weight loss (identified regulation within extrinsic motivation). Similar phenomena have been observed by Tang (2023) at Body Light, where five existing members have come to the studio with initial intrinsic motivation of enjoyment, and continued their progress based on extrinsic motivations of losing weight. These examples are further supported by a study done on motivations to lose weight, where both intrinsic and extrinsic motivations were observed to coexist within the behavior, and change over time depending on the context (Martinez et al. 2022, 9). Amotivation can also be observed in the realm of physical activity, characterized by an individual's absence of intention to participate or engage. While the concept of amotivation is multifaceted, it is often attributed to factors such as a perceived lack of competence and a disconnection between the action and desired outcomes. (Ryan & Deci 2017, 16).

### **2.3.3 Motivation of participation in Yoga and Pilates**

Numerous studies exploring the motivations of Yoga and Pilates practitioners further offer valuable insights applicable to understanding motivation in a more specific context. In a Chinese study, motivations among Yoga practitioners varied, encompassing physical and psychological aspects, appearance, mastery, and enjoyment, with skilled instructors positively influencing motivation levels (Jia 2018, 12). Additionally, a Romanian study underscored intrinsic motivations as predominant

factors, highlighting motivations in knowledge, accomplishment and experience stimulation. The objectives for practicing Yoga and Pilates in this study were mainly muscle tone and posture correction (Petracovschi 2014, 120-121).

Interestingly, Yoga members and instructors highlighted evolving motivation patterns based on level of experience. A shift from primarily physical motivations, such as flexibility and exercise, during initial stages, to more psychological motives like spirituality and stress relief with increasing experience was highlighted. (Park, Riley, Bedesin & Stewart 2016, 893). Changing motivational patterns was also present in a national survey of Yoga in Australia, where the majority of respondents noted starting Yoga for physical improvements in body, but continue to practice Yoga to reduce stress. The main motivations for Yoga were highlighted as improving health, increasing flexibility and muscle tone, and reducing stress. (Penman, Cohen & Stevens 2012, 95; 99). These attributes and motivations should also be taken into account when designing the level guide, as members of Pilates may have differing motivations for practicing Pilates, and their motivations may change with the level of experience they acquire.



### 3 Research methodology

To facilitate the creation of a level guide for Body Light, a constructive research approach was chosen, guiding the execution and facilitation of the development project. Constructive research aligns with the aim of creating something new from the development project (i.e. a new reality), such as a handbook, method or plan. Therefore, constructive research is a suitable approach in developing a new level guide. (Ojasalo, Moilanen & Ritalahti 2022, 67).

Research methods are typically divided into quantitative and qualitative methods, where development work emphasizes a variety of methods (Ojasalo et al. 2022, 41-42). I have chosen a focus on qualitative methods, as it offers flexibility throughout the phases of the development project. In contrast, quantitative research requires a tight inflexible structure, potentially overlooking the possibility of any new arising topics, highlighting its unsuitability for this development project (Holland 2010, 232). The data collection methods used in this development project are process benchmarking, focus group interview, observation and probe method. These methods all prioritize qualitative data collection, aligning with the research problem of this development project.

#### 3.1 Constructive research approach

Due to the nature of this development project, where the emphasis is on practical application and change, both action research and constructive research emerged as viable options. However, as the aim is to create a concrete solution to the problem, the constructive research approach was chosen as the most suitable approach. As there is a lack of an existing structural level guide in Pilates in the Chinese market, the aim of developing this novel construct is to actualize a new structural form of skill development – a new reality. Constructive research focuses on solving problems in the real world through the development of innovative constructs, i.e. a product, handbook, method or plan, where theory is closely linked with the developmental change. (Lukka 2003, 83-84; Ojasalo et al. 2022, 57).

Practicality and functionality of the developed solutions are highlighted in constructive research, ensuring relevancy to the development problem. The approach also involves establishing a theoretical link between existing theory and the solution, and further contributing to new knowledge. (Lukka 2003, 84-85). By implementing concrete solutions, constructive research enables meaningful and practical structures, fostering new and better solutions. Due to its nature in practicality, communication between the researcher and commissioning company is essential, and commitment to the project is required by both parties. (Ojasalo et al. 2022, 68).

According to Ojasalo et al. (2022, 69-70), constructive research consists of six stages in the research process, as highlighted in Figure 5. It begins with searching for a meaningful problem to ensure a meaningful solution to the current situation. As the link between existing theory and the solution is crucial in constructive theory, in-depth practical knowledge of relevant theory must be established. Once theoretical grounds have been established, the next step is to plan the solution, where innovation of the construct is highlighted. Innovation is a core phase in constructive research, where the aim is to produce a new solution to a problem. Without an innovative angle, the research lacks purpose. With the planned solution, progression to testing the functionality and viability of the solution commences. The final two phases involve showing the solution's connection to theory and its novelty, as well as assessing its applicability. (Kasanen, Lukka & Siitonen 1993, 246; Ojasalo et al. 2022, 69-70).

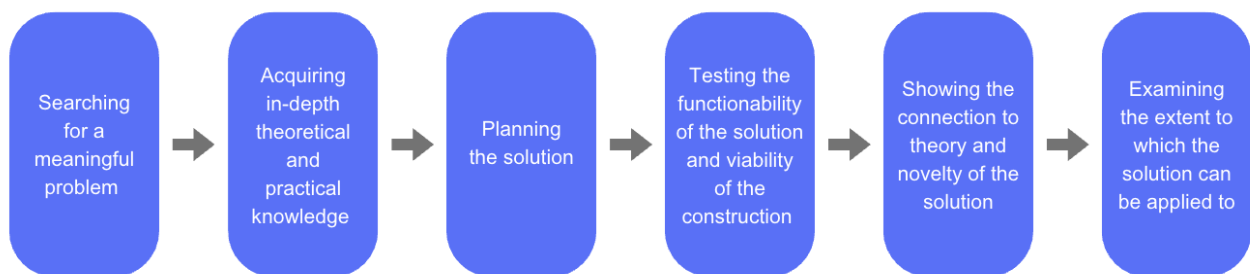


Figure 5. Constructive research process (adapted from Ojasalo et. al 2022, 70).

Using the constructive approach can be a massive undertaking, as it not only aims to create something new, but it is crucial to tie the results to existing theory, and produce new knowledge contributive to the field. Therefore, a big challenge faced in constructive research is the total maintained commitment of target organization and the researcher. Furthermore, the construct developed must be functionally applicable to not only the commissioning company, but also within the relevant field. This requires extensive amounts of work, research and testing to ensure applicability. The final testing results may further result in changes or even failure of the initial construct, making the construct inapplicable. (Lukka 2003, 97-99).

Ensuring a maintained commitment to the development project from Body Light and myself is highly likely, as the development of the level guide aligns with the growth strategy of Body Light, as well as the personal relationship between myself and the company. Moreover, I have narrowed down the scope of my work to ensure its feasibility, as can be seen in the development project process (chapter 3.4).

## 3.2 Data collection methods

Typical to constructive research, data collection methods should be a combination of different methods to ensure versatility. However, no single method is outlined as necessary, which makes the selection of research methods flexible. The emphasis on collaboration is highlighted in constructive research, which should also reflect in the chosen data collection methods: common ones include interviews, surveys and group discussions. It is also worth considering the inclusion of the future users of the solution into the research process, as this facilitates the understanding of their needs. (Ojasalo et al. 2022, 71).

In response to the objective of the development project and a focus on fostering collaboration among internal employees and future users, I have selected a diverse set of data collection methods. These methods include benchmarking, a focus group interview, and observation and probe method of the pilot test. Through the integration of varied data collection methods focusing on the same research questions, method triangulation can be achieved. This approach ensures that while data collection methods focus on the same phenomenon, the results should not be contradicting, and furthermore, they should allow for diverse interpretations and differing constructions. Method triangulation not only enhances the validation of the findings of this development project, but it also allows for comprehensive understanding of the phenomenon from multiple vantage points e.g. internal employees, Pilates instructors and members. (Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville 2014, 545; Flick 2018, 23-24).

### 3.2.1 Benchmarking

Benchmarking is a method utilized to systematically learn from exemplary models or best practices (Vuorinen, 2013, 158). Upon finding best practices through benchmarking, they should be applied in a creative manner, aiming to produce something new. Benchmarking is useful in finding inspiration for new realizations, and is suitable for developing operational processes. This is why benchmarking has been chosen as a research method in the development of the Level Guide. (Ojasalo et al. 2022, 182).

There are up to ten different benchmarking classifications, each focused on different outcomes. Process benchmarking focuses on content benchmarking, aiming to distinct work processes and operating systems. (Anand & Kodali 2008, 261). Therefore, process benchmarking has been selected for this development project, as it ensures findings the best practices of existing levels and their processes in the development of the Level Guide. The benchmarking process follows the below structure adapted from Freytag and Hollensen (2001, 25) and Vuorinen (2013, 160-161)

(Figure 6). This adapted benchmarking process is one of my contributions to new knowledge, where a unified process has been created using two separate existing models.

First, the initial planning phase consists of defining the developmental needs of benchmarking and analyzing the current situation, including both benchmark factors and importance of each factor. The next phase is choosing who to benchmark against, e.g. the industry's best-in-class companies or processes. Upon collecting data through benchmarking, the data should be analyzed to identify performance gaps, best practices and to establish goals. Lastly, the findings from the data analysis of best practices, "benchlearning", and implementation, "benchaction", should be applied and adapted. (Freytag & Hollensen 2001, 25; Vuorinen 2013, 160-161).

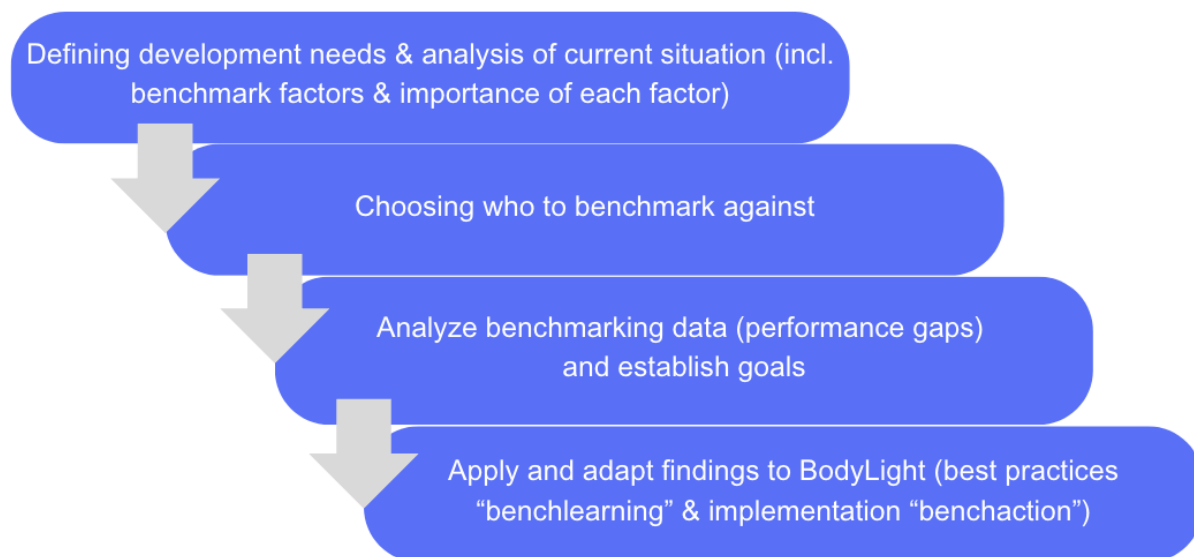


Figure 6. Benchmarking process (adapted from Freytag & Hollensen 2001, 25; Vuorinen 2013, 160-161).

### 3.2.2 Focus group

The second phase of the development project was to facilitate a focus group interview of relevant target users of the Level Guide. Focus group interviews emphasize gaining substantial opinions and insight on themes, where ideas and opinions are formed within the group, instead of relying on individuals. The benefit of conducting focus groups is the innovative approach, in which new levels of themes and insight can be uncovered. Characteristics of focus groups include a variety of opinions, interactivity, a supportive environment for voicing opinions, and the ability to collect more data in less time. (Daymon & Holloway 2010, 186-187; Ojasalo et al. 2022, 115).

In this focus group interview, a nominal group method was chosen, in which participants worked both individually and as a group (Ojasalo et al. 2022, 116). The reason for choosing the nominal group method is its suitability to Chinese culture, where collectivism impacts behavior through i.e. agreeing to the majority in the fear of disrupting harmony within the group (Rhee, Zhao, Jun & Kim 2017, 1128). The nominal group method is perceived as less threatening, and it allows each member an opportunity for insight input (Ojasalo et al. 2022, 116).

The purpose of the focus group interview in this development project was two-fold: to support the qualitative data collected from the process benchmarking, and to incorporate the target group into the co-creation of the level guide (collaboration). As the target users of this level guide are both instructors and members of different levels, the participants of the focus group reflected this.

### **3.2.3 Observation**

The last phase of this development project was to test out the created construct to ensure viability and further implications to the results. This was done through a partial pilot test within the Body Light studio, where the first stage of the level structure was tested: initial assessments of new members.

Observation was chosen as the research method in this phase, as it allows for behavioral data collection in natural environments, and is a useful method in development work. Observation is a common practice in development work, where the aim is capturing the dynamics of action or interaction within natural environments. Observation enables the examination of behaviors, actions and outcomes, of how targets are used and their results. (Ojasalo et al. 2022, 117).

Observation should be thoroughly planned and prepared, including the consent of participants, the role of the observer, the focus of the observation and the tools used. Observation can be participatory or non-participatory in nature, determining the degree to which the observer takes part or interacts within the process. The three types of observation are structured, semi-structured and unstructured. This development task utilized structured observation through non-participatory means, where the aim of the observation is very clear, focusing on the relevant areas of the research. Documentation of the observation is also important, where note-taking of pre-determined topics was used. (Ojasalo et al. 2022, 118-119; Olava 3 April 2023).

### **3.2.4 Probe method**

As the pilot test implementation would span across multiple assessment classes and consist of multiple participants, observation was deemed insufficient as the only data collection method. A single observer would have very limited ability in observing every participant and interaction, and it

would not take into account the feelings and thoughts of the participants. Therefore, to supplement and complement the data collected through observation, all participants were given the task of keeping diaries during the implementation, also known as the probe method. Probe method is when researched subjects are asked to keep a personal diary, based on a planned outline, consisting of relevant questions and areas of interest, and to be gathered regularly (Ojasalo et al. 2022, 45).

The purpose of probe method is to extract deeper and contextual insight of user behaviors and needs, where those insights are relatively unbiased, as they are reported by the user themselves (Hillenbrand 24 January 2019; Salazar 29 March 2024). As the probe method is focused on an inside view, and it can result in better personal research compared to e.g. observation, as it is completed in privacy by the participant. However, this in turn requires the task to be explained with clear instructions to avoid misunderstanding. It is also important to ensure that participants have an intrinsic motivation to participate, to avoid misguided results. (Thoring, Luippold & Mueller 2013, 11-12).

### **3.3 Data analysis**

The data collection methods ensure the collection of data; however, this does not yet equal meaningful results. It is the dialogue between the researcher, data and theory that creates the new, relevant knowledge. (Ojasalo et al. 2022, 123). Therefore, the data analysis method is important in discovering trends in the collected data. The method chosen for data analysis in this qualitative research was thematic analysis.

Thematic analysis is a commonly used method of analysis in qualitative research, that systematically identifies and organizes patterns (themes) within datasets, producing overall meanings, instead of individual ones. In short, by using thematic analysis, researchers can find commonalities in collected data, helping to make sense of the themes. However, where commonalities are observed, not all results from thematic analysis are meaningful, and it is the researcher's responsibility to ensure the relevancy to the research. (Braun & Clarke 2012, 58). Thematic analysis is suitable as a data analysis method for this development project, as it is a flexible and adaptable approach, especially suitable for less-experienced researchers due to its ease-of-use (Nowell, Norris, White & Moules 2017, 2).

### **3.4 Development project process**

This development project employs a qualitative research method, consisting of the following core phases: benchmarking best practices, collaborative co-creation facilitated through a focus group interview, and observation and probe method of the pilot test implementation. The development

process of this project is guided by the phases of the constructive research process (Figure 5), as detailed below:

- **August 2023:** The development project began with internal discussions with the commissioning company on the outline and scope of the development project, and what problem it would solve.
- **October 2023 - January 2024:** Through the writing of the theoretical framework, in-depth knowledge was gathered from a variety of relevant theories and existing frameworks.
- **February - March 2024:** Benchmarking of best practices in relevant industries was conducted, aligning with the theoretical framework in providing practical, relevant knowledge.
- **March 2024:** To ensure the future user's needs be taken into consideration, a focus group interview was facilitated, consisting of relevant users in the industry – members and instructors.
- **April 2024:** To ensure the validity and value of the created level guide, a pilot test took place, during which observation and probe method were used in determining the effectiveness of the level guide. The results from the observation and probe method gave further insight into designing the final version of the Level Guide.
- **April-May 2024:** Working with the core members of Body Light, the finalized version of the Level Guide was created.

Testing the finalized construct in practice can be done through three market test levels: within the target organization (passing weak evaluation), within several same-industry organizations (passing medium evaluation), and comparing the outcomes of implementation in organization against those that have not implemented (strong evaluation) (Ojasalo et al. 2022, 71). Due to the time constraints of this development project and the commissioning company, only a partial internal organizational market test was implemented through a pilot test of assessment classes, evaluated through observation and probe method.

The scope of this development project did not include the full implementation of the level guide in Body Light or the Pilates industry, the specific requirements and curriculum of levels, or scientific contribution to theory. However, the Level Guide is aimed to work as a foundation for Body Light, or any other studio in the industry, providing key principles for the practical implementation of structured levels for future use. This also means that the development project is producing new knowledge on the topic, therefore qualifying for constructive method. The scope and process of the development project has been visualized in Figure 7.

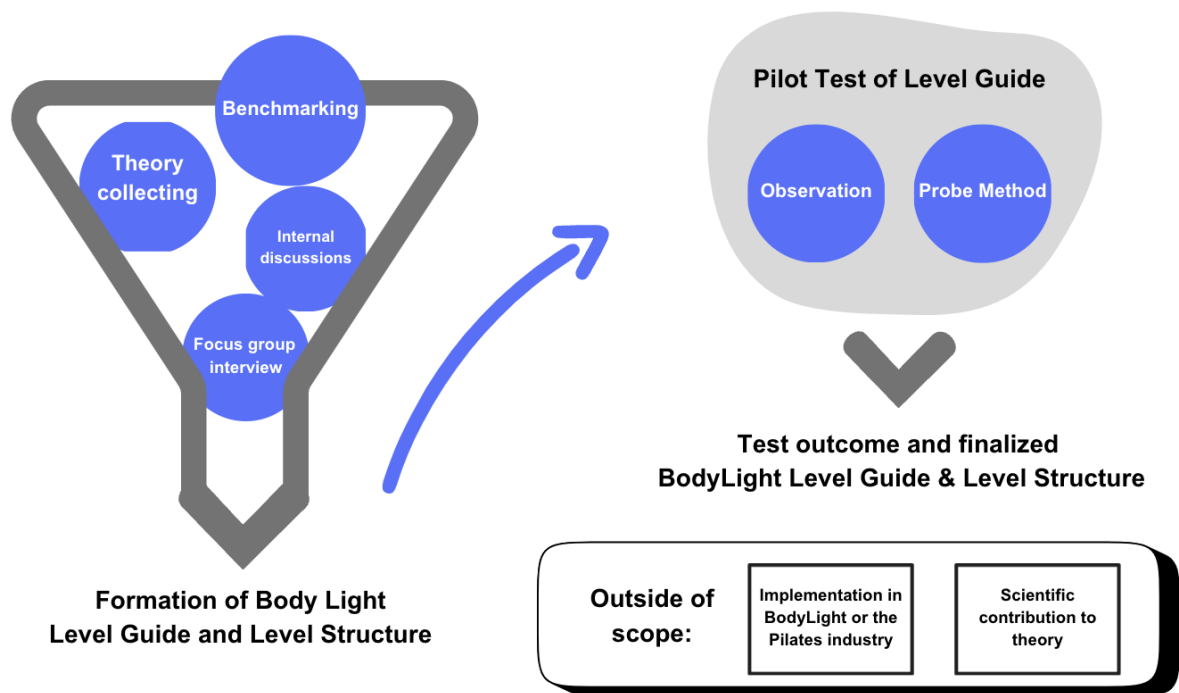


Figure 7. Development project process and scope (adapted from Peltonen 2022, 6).



## 4 Research findings

With the research and data collection methods finalized, and the development process established, the next phase was to begin conducting the empirical part of the research. This involved conducting the research based on the chosen data collection methods and analyzing the extracted data. The empirical phase of the development spanned over a total of three months, from February 2024 to May 2024.

This chapter covers the processes and research findings of each data collection method, as well as the implications for the development project. The data collection methods consisted of process benchmarking, focus group interview of relevant Pilates practitioners, and a combination of observation and probe method in the pilot test.

### 4.1 Benchmarking

Due to the nature of the development project creating a new Level Guide, I chose process benchmarking as the most suitable benchmarking approach, as explained in chapter 3.2.1. By conducting process benchmarking in this development project, the aim was to understand the following:

- What kind of level systems exist in the sports, fitness and recreation fields?
- How are member and instructor levels divided & what are the requirements of each level?
- How is the transition from member to instructor facilitated?
- How is progression within the member and instructor levels facilitated?
- What teaching materials are utilized to help with learning?
- What are the similarities and differences between the chosen level systems?

Finding answers to the above questions would establish initial best practices, guiding the creation of the Level Guide. In creating the Body Light Level Guide, it was important to gain practical insight from existing level guides on their **overall structure, level components, and a clear progression pathway**. The process benchmarking focused on the general structures and progression within the levels, rather than the specific curriculum of levels. The benchmarking process and structure were inspired by the benchmarking conducted in Peltonen's Master thesis on organizational culture handbooks (Peltonen 2022, 28-37).

Given the scarcity of existing level guides and systems in the Pilates industry, I expanded the scope of benchmarking to include recreation, sports and fitness industries. To ensure relevancy to the development project, the following criteria were set:

- Must be within the sports, fitness or recreation fields
- Must have both member (recreation) and instructor (professional) levels
- Must be a proven level system (currently in use)

I used search engines (Google and Baidu), ChatGPT 3.5 and existing knowledge of Body Light members to search for systems to benchmark. Filtering and assessing search engine results proved time-consuming, whereas ChatGPT3.5 provided instantaneous, relevant results. Consequently, the combination of ChatGPT3.5 and existing knowledge generated the most relevant results. To further refine the high number of search results, I added an additional criterion: the level systems must target adults. As many systems lacked the inclusion of both recreational and professional levels, they were excluded from the benchmarking despite offering valuable insights.

At this point, it was crucial to revisit the benchmarking purpose, focusing on the overall **structure, level components, and clear progression pathway**, ensuring relevancy to Pilates. Following the established criteria and purpose, a total of nine level systems were initially shortlisted, of which a further five were excluded for various reasons detailed in Table 1.

Table 1. Shortlisted level systems for benchmarking.

<b>Level System</b>	<b>Status</b>	<b>Reason for not choosing</b>
CrossFit courses	Not chosen	No clear progressive pathway from member to instructor.
Professional Ski Instructors of America (PSIA): Certification Standards	Not chosen	Not enough information found online
American Red Cross: Adult Swimming Levels & Teacher Certifications	Not chosen	Not enough information found online, and no cohesiveness between levels and teacher certifications
Academy of Surfing Instructors (ASI): Surfing Courses	Not chosen	Not enough information found online concerning individual levels (e.g. requirements, components)
Professional Association of Diving Instructors (PADI): Freediver Courses	Not chosen	Limited information on courses, lacking a structural level image
Canadian Ski Instructors' Alliance (CSIA): Certification Pathway	Chosen	N/A
Club Pilates: Levels & Teacher Training	Chosen	N/A
Professional Association of Diving Instructors (PADI): Scuba Diving Courses	Chosen	N/A
International Kitesurfing Organization (IKO): Kitesurf Courses & Certifications	Chosen	N/A

Upon thorough consideration, the following four level systems were chosen for benchmarking: PADI Scuba Diving Certification Levels, Club Pilates Levels & Teacher Training, IKO Kitesurf Courses & Certifications, and CSIA Certification Pathway (see Table 2). Each system demonstrated clear level structures, progression of both member and instructor, and sufficient information available. Although Club Pilates lacked a visual representation of its level structure, it was deemed relevant to the Pilates industry. Interestingly, three out of four finalists were within extreme sports.

Table 2. Chosen level systems for benchmarking.

<b>Level System</b>	<b>Company background</b>	<b>Other notes</b>
PADI Scuba Diving Certification Levels	The largest scuba diving association of over 50 years, in 6,600 diving centers across 180 countries globally. PADI has nearly 130,000 professional members & 30 million certified divers. They prioritize consistent quality in training, safety and customer service. (PADI 2024).	Existing operations in China
Club Pilates Levels & Teacher Training	A part of the largest franchisee boutique gym company Xponential Fitness, Club Pilates has over 1,000 studios globally. Operations are focused around three areas: Pilates (member) classes, Pilates teacher training, and studio franchising. (Club Pilates 2024). Club Pilates has further ranked in the Entrepreneur's Franchisee 500 for several years (Entrepreneur 2024).	Lacks a visual representation of level structure, but offers separate level & teacher training structures.  Highly relevant to the Pilates industry.
IKO Kitesurf Courses & Certifications	Established in 2001, IKO currently operates in 60 countries and 350 affiliate centers, with over 600,000 members and 5,000 certified instructors. IKO consists of three areas: member skill development, job opportunities, and kite school affiliation. With the most comprehensive selection of courses, IKO emphasizes safety, quality and providing proper resources. (IKO 2024).	N/A
CSIA Certification Pathway	Established in 1938, CSIA is highly recognized skiing instructor organization. CSIA provides ski instructor certification levels and member levels within the same system, promoting the ski instructor profession and growth of skiing as a sport. (CSIA 2024).	Exclusive to the Canadian market, but high awareness in Chinese market (search term "CSIA" produced hundreds of results on social media platform RED).

In line with the benchmarking process, the benchmarking was conducted in three areas within the third step "analyze benchmarking data": Progression analysis, level component analysis and teaching approach analysis (Figure 8). Originally, the plan only encompassed progression and level component analysis. However, it was later recognized that evaluating teaching approach was equally important for identifying best practices on "how to teach". The progression analysis

provided insight on the structural design of level systems and their progressive pathways. The components of levels were examined to understand learning focus, materials used, requirements, and assessments. Lastly, the teaching approach of each system was analyzed to determine how teaching is facilitated in the different level systems. Best practice insights were used in creating the Body Light Pilates level guide.

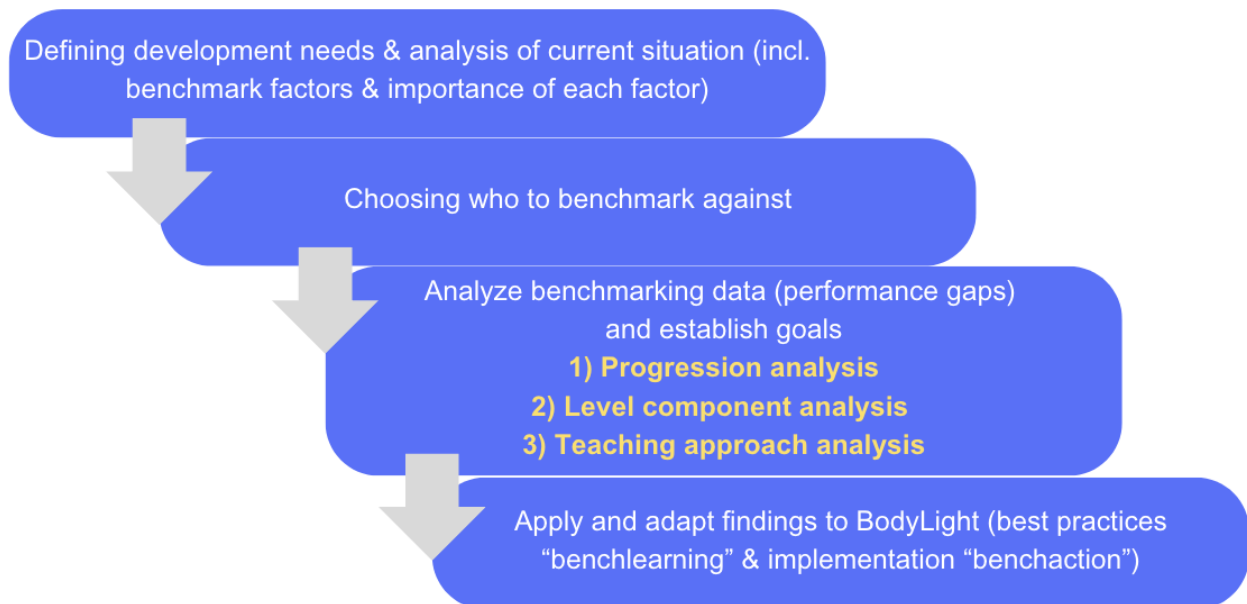


Figure 8. Benchmarking process (adapted from Freytag & Hollensen 2001, 25; Vuorinen 2013, 160-161.)

#### 4.1.1 Progression analysis

The progression analysis consisted of two areas: the overall structures of the different level systems and facilitation of progression. I began by examining the overall structures of the level systems, pointing out structural similarities and differences. Club Pilates lacked a cohesive structure, which is why the member levels and teacher training modules were examined separately.

All four structures had levels divided into recreation (member), and professional (instructor), distinguishing the difference between these two categories. However, CSIA differed from the others by integrating both member (skiing track) and instructor (teaching track) within the same level structure, where individuals could choose to progress in either skiing or teaching tracks. However, when wanting to become a teacher, the individual needed to complete assessments in both skiing and teaching tracks in the required levels. (CSIA 2024).

A Venn diagram was made to visualize the similarities and differences of the four systems' structures (Figure 9). Similarities of all four systems included: a clear level division between recreational

and professional levels, and progression of skills from level to level. Three of the systems began with a no prerequisites beginner level, worded as “discovery” or “foundation”. CSIA, however, had a prerequisite of intermediate skiing confidence (through self-learning) to beginning Level 1.

Both IKO and Club Pilates emphasized the facilitation of a more linear pathway (i.e. starting from Level 1 and progressing by level); whereas PADI and CSIA offered a higher rate of flexibility in progression. PADI implemented specializations and alternative tracks, whereas CSIA had two learning tracks within the same system. Regarding level names, PADI and IKO utilized descriptive wording to signify the member’s level, e.g. PADI’s “Master Scuba Diver”, and IKO’s “Kiteboarder”, while Club Pilates and CSIA used numbering for their levels.

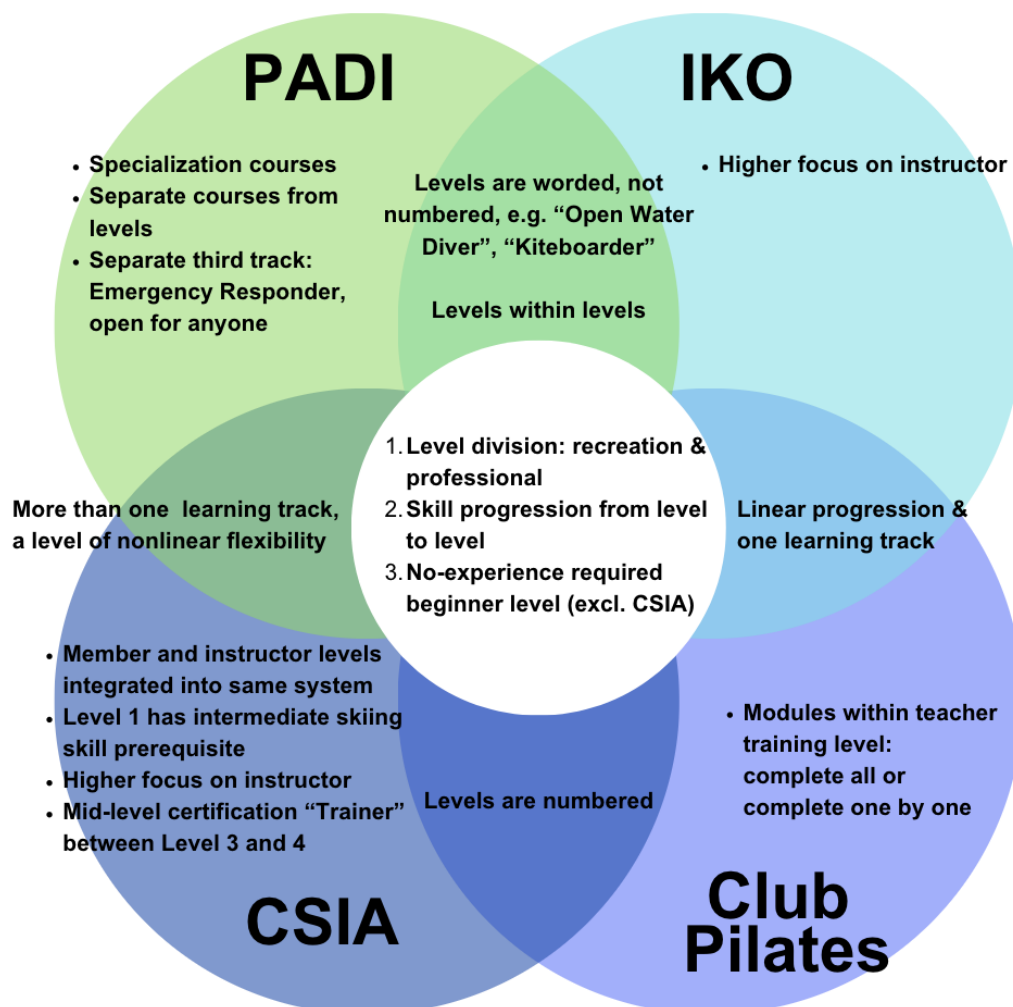


Figure 9. Venn diagram of level structure and content differences and similarities.

To further analyze the progression within these systems, I added dimensions of complexity and progression pathway. Complexity looked at the total amount of levels and courses, together with estimated progression duration from beginner member to instructor. Complexity was ranked 1-5, with 1 indicating simple, and 5 indicating complex. Progression pathway was similarly ranked 1-5, where 1 indicated linear, (no flexibility in progression, must adhere level to level) and 5 indicated nonlinear (flexibility in progression). Each system was ranked based on complexity and progression pathway, and then plotted in a quadrant chart (Figure 10) to visualize their rank in comparison.

PADI scored a 5 in complexity, due to its 13 levels, five separate courses and 43 specializations, with progression to the “Divemaster” level taking eight weeks to half a year (Denny 10 May 2023). Its progression pathway scored a 4, as it offered flexibility through specializations and a separate CPR/First Aid track. Club Pilates scored a 3 in complexity, as it had very few levels, but teacher training requiring an extensive 500 hours of study (Club Pilates Teacher Training 2023, 3). Its progression pathway scored a 2 due to being highly linear. IKO scored a complexity of 4, having 19 levels and increasing learning hours by each level, whereas its strictly linear progression pathway scored a 1 (IKO 2024). Lastly, CSIA scored a 2 in complexity, with only seven levels and relatively fast progression to the “Trainer” level in an estimated 20 days (CSIA 2024). Its progression pathway scored a 3, combining linearity and flexibility in separate tracks from Levels 1 to 3.

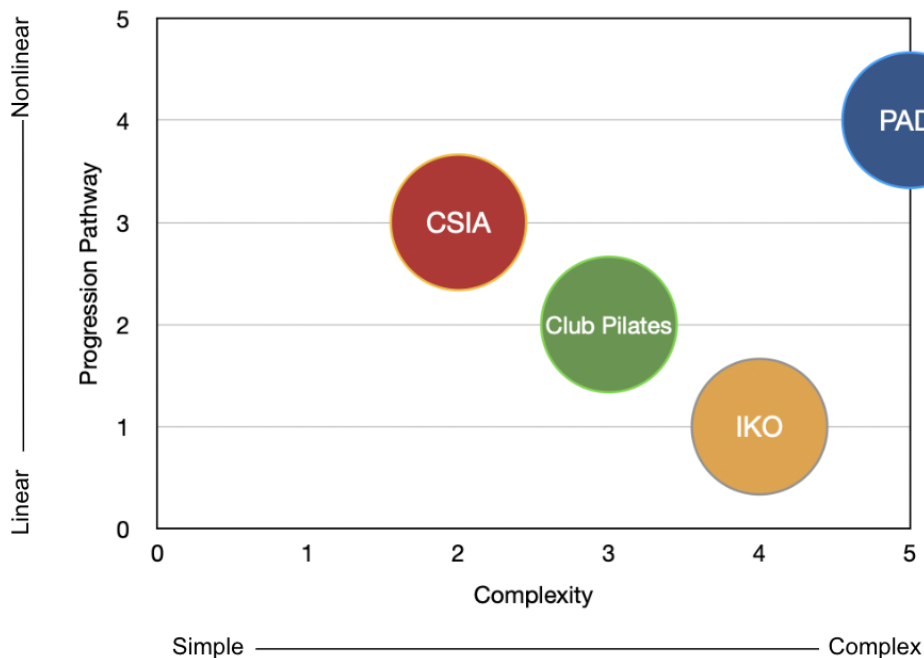


Figure 10. Quadrant chart of level progression (progression pathway and complexity).

In terms of complexity, none of the systems were completely simple, but within progression pathway, complete linearity was observed in IKO’s pathway. PADI was the most complex, possibly due

to its variety of specializations and safety considerations. An overall trend of these four systems was observed: the more complex a system, the more flexibility it seems to offer. CSIA stood out as an “ideal” pathway, as it offered a level of flexibility, whilst still having linear components (i.e. specific requirements in skill development). Furthermore, it was not overly complex as a structure, which aided in the creation of the development project.

#### **4.1.2 Level component analysis**

Once the progression analysis was completed, I began the second part of the benchmarking, the level component analysis. This aimed to benchmark the best practices in level design, assessing how each component contributes to the overall structure and facilitates progression of skill development. Level component analysis was conducted systematically by reviewing level introductions, outlines, and requirements from official websites, supplemented by information of participant experiences from platforms such as Reddit, YouTube, Facebook and RED. This analysis was divided into recreational (member) and professional (instructor) levels due to differing objectives and motivations. Themes were gathered from all four systems and organized into two separate tables. These themes were then visualized using radar charts to provide a clearer comparison.

The analysis of recreational level components (Table 3) mostly aligned with expectations and previous findings (see chapter 4.1.1). There were four consistently present level components in all four systems and levels: safety, technical training, practical training and assessment of a level. Both technical and practical training were expected to be components of the levels, but it was surprising to see that only safety and assessment were the two other similar components in all four systems. Regarding level assessment, IKO, PADI and CSIA each had specific assessment measures, whereas Club Pilates only required a teacher approval for higher levels, lacking specific criteria for lower levels and relying on self-assessment.

As mentioned, all four systems observed both technical and practical training. Technical training served as a foundation to skill development, preparing individuals for practical application. Club Pilates emphasized techniques such as breathing, core activation and mastering movement fundamentals, before progressing to e.g. reformer workouts (Club Pilates 2024). Similarly, PADI had controlled pool “mini dives”, practicing diving techniques before progressing to open water dives (PADI 2024). Both IKO and CSIA emphasized land-based technical training before moving to the water or slopes (IKO 2024; CSIA 2024). Therefore, I concluded that both technical and practical training were essential components in meeting requirements of levels.

Table 3. Results of recreational (member) level components.

<b>Level Component</b>	<b>PADI</b>	<b>Club Pilates</b>	<b>IKO</b>	<b>CSIA</b>
Theoretical knowledge (teaching, review, planning etc.)	x		x	x
Equipment knowledge (how to use, setting up etc.)	x	x	x	
Safety protocols & awareness	x	x	x	x
Assessing environmental factors (wind force, buoyancy etc.)	x		x	x
Technical training (before going to the final environment like reformer, slope, ocean)	x	x	x	x
Practical training (the actual sport or movement in the final environment)	x	x	x	x
Workshop learning				x
Skill assessment/ Exam (end of level completion)	x	Teacher Approval for levels 2 & 2.5	x	x
Certification (achievement recognition)	x		x	x

Given the nature of the different sports, I had anticipated Pilates to have less stringent components within its levels compared to the others, as it could be regarded a comparatively “safer” form of movement. This can be clearly observed in Figure 11, where Club Pilates scores typically lower compared to the others. Components such as environmental awareness and safety were crucial in the three extreme sports, whereas not as central to Club Pilates. Safety within Club Pilates was mainly addressed through proper equipment use and movement modification based on individual needs (Club Pilates 2024). Additionally, none of the member levels result in any formal level completion assessment or certification in Club Pilates, which could potentially lead to decreased motivation of members.



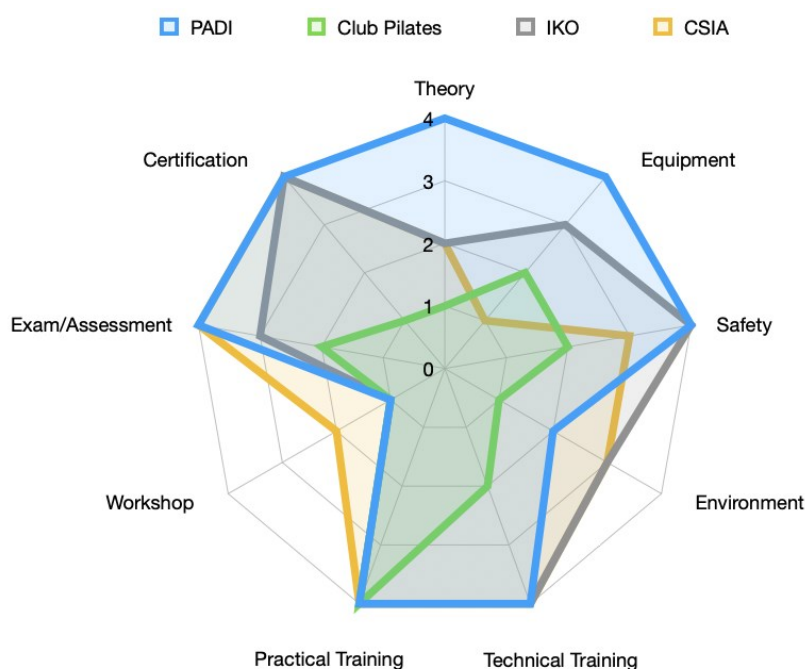


Figure 11. Radar chart of recreational level components by system.

When analyzing the professional level components, I noticed several components to overlap with those of the recreational levels. However, the professional requirements were notably stricter, more specific, and comparatively more varied. Of the total 12 components, eight were common across all four level systems: class programming, teaching skills, theory, technical and practical skill training, equipment use, as well as an exam and certification for completion (Table 4). The eight common components were observed to fit into three main themes; teaching skills, personal skill development and assessment.

Teaching skills encompassed class programming, teaching-specific skills, theory, and equipment use. Teaching-specific skills covered areas such as proper communication of movement cues (Club Pilates), public speaking and leadership (PADI), communicating complex theoretical concepts (IKO), and collaborative teaching methods (CSIA). Class programming addressed alignment of moves (Club Pilates), dive safety measures (PADI), trial teaching with corrective measures (IKO), and assessment of learners, environment and objective (CSIA). Theoretical learning was integral in all level systems; delivered through various channels, including eLearning portals and manuals (further details in Table 5). Equipment use covered understanding and utilizing the equipment effectively, and ability to instruct students on its use.

Personal skill development included technical and practical training, similar to recreational levels, however, teaching skills took precedence. Professional level attendance required participants to meet prerequisites of existing skill ability, reducing the emphasis on personal skill development.

Each professional level assessment resulted in an instructor certification, comprising of theoretical and practical exams, and teaching exam in higher levels. With a professional certification, individuals could teach within specified recreational or professional levels. Unlike the other three systems, Club Pilates lacked a level specifically geared towards teaching professional levels.

Table 4. Results of professional (teacher) level components.

<b>Level Component</b>	<b>PADI</b>	<b>Club Pilates</b>	<b>IKO</b>	<b>CSIA</b>
Anatomy, physics, physiology	x	x		
Theory	x	x	x	x
Industry knowledge, sales, or marketing	(higher levels)		(higher levels)	
Equipment use	x	x	x	x
Modification of movements		x		
Class Programming	x	x	x	x
Teaching Skills (communication, cues etc.)	x	x	x	x
Technical knowledge and training	x	x	x	x
Practical training (with instructor & on own)	x	x	x	x
Risk mitigation, safety	x		x	x
Exam	x	x	x	x
Certification	x	x	x	x

Figure 12 further visualizes the importance of teaching components and assessment of levels, which were all ranked highly among all four level systems. Although practical and technical skill development were important, they were seemingly secondary to teaching skills. When comparing the differences in level systems, PADI and Club Pilates had overall higher level of importance in the professional level components. Movement modification was exclusive to Club Pilates, where

modification to individual needs was deemed crucial. Both Club Pilates and PADI had theoretical requirements on anatomy (Club Pilates), physics and physiology (PADI). PADI and IKO further highlighted similarities in their professional level components. Industry knowledge, including marketing and sales, emerged in higher professional levels, indicating the importance of understanding industry dynamics and customer retention strategies in these two systems. Additionally, safety was rated highly with PADI and IKO, reflecting the complexity of these sports.

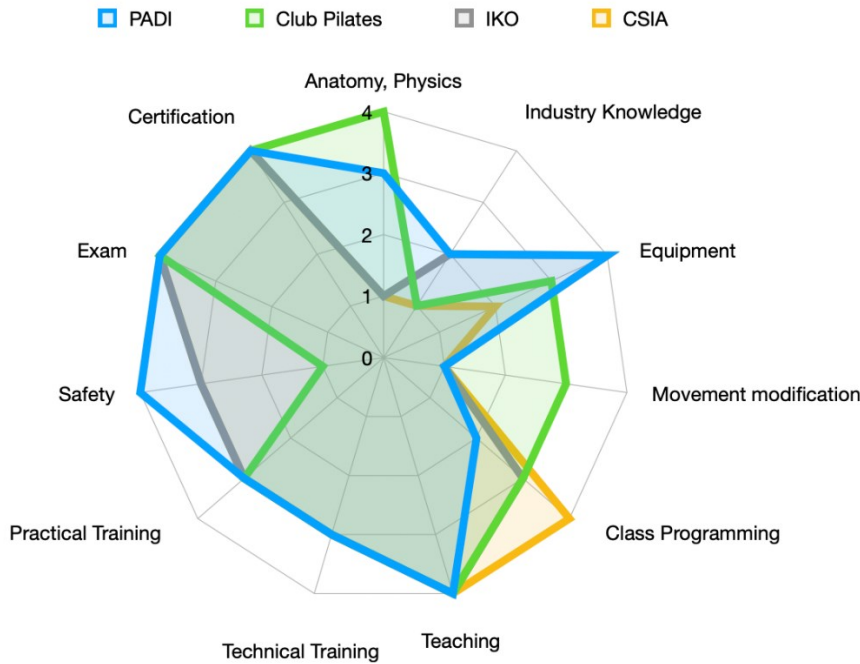


Figure 12. Radar chart of professional level components by system.

#### 4.1.3 Teaching approach analysis

To complement the findings of the level component analysis, I examined teaching approaches to determine the best practices in teaching within the levels. As outlined in chapter 2.2, the teacher's role in shaping a student's skill development is crucial in adapting constraints to individual needs. Additionally, chapter 2.1 outlined the significant impact of teacher qualification and communication to customer satisfaction and loyalty. The factors within the teaching approach analysis were pre-determined to include the following: materials used, class size, class format and instructor qualifications. Each factor was analyzed by all four systems, and results visualized.

The level component analysis revealed that theoretical, technical and practical training were integral level components. Therefore, analyzing the materials used in the assistance of teaching served as supplementary information to the findings. Table 5 displays the materials used in the four systems, across recreational and professional levels. As I had predicted, the professional

levels generally necessitated more materials, covering a broader range of theoretical areas. PADI, IKO and CSIA, providing certifications at recreational levels, incorporated materials such as eBooks and manuals for the learner. Contrastingly, Club Pilates employed no materials for recreational levels, due to the lack of certifications or formal assessment. Even within the professional levels, Club Pilates only provided online manuals of the different study modules, suggesting opportunity for improvement in teaching materials utilized. Conversely, PADI, IKO and CSIA, offered a variety of materials in their teaching approach, including apps, learning portals, videos, manuals and evaluation forms.

Table 5. Teaching materials used in levels.

<b>Level System</b>	<b>Recreational Level Materials</b>	<b>Professional Level Materials</b>
<b>PADI</b>	<ul style="list-style-type: none"> <li>- eLearning portal (online) / PADI Manual (offline)</li> <li>- Dive log app (online) / Logbook (offline)</li> <li>- Exam (online or offline)</li> </ul>	<ul style="list-style-type: none"> <li>- eLearning portal (online) / PADI Manual (offline)</li> <li>- Dive log app (online) or Logbook (offline)</li> <li>- Exam (online or offline)</li> </ul>
<b>Club Pilates</b>	None	6 Manuals: Mat; Reformer; RTC; Chair; Special Populations; and Ladder Barrel; Online Exam
<b>IKO</b>	<ul style="list-style-type: none"> <li>- eBooks (online);</li> <li>- Handbooks (online);</li> <li>- Online quizzes;</li> <li>- Teaching videos (online)</li> </ul>	<ul style="list-style-type: none"> <li>- eLearning (online);</li> <li>- Online quizzes;</li> <li>- Teaching videos (online);</li> <li>- Manual for levels (online);</li> <li>- Online exam (higher levels)</li> </ul>
<b>CSIA</b>	In-class materials provided, only available upon participation	<ul style="list-style-type: none"> <li>- Online Learning materials: (Skills Framework, Collaborative Teaching, Fundamentals of Skiing, Performance Model)</li> <li>- Participant Development Plan;</li> <li>- Skiing Exam Level Sheet;</li> <li>- Teaching Evaluation Form</li> </ul>

Differences in class size between recreational and professional levels were evident, with professional levels typically having smaller class sizes (Figure 13). Club Pilates had the largest recreational class size, with a maximum of 12 students, followed by PADI at 10. Both IKO and CSIA maintained consistent class sizes across levels, yet IKO emphasized a student-to-teacher ratio of 3:1, ensuring efficiency in teaching regardless of complexity of kiteboarding. In contrast, Pilates uses stationary equipment, potentially facilitating easier monitoring, and therefore accommodating larger class sizes. In light of these findings, optimal class size should average at about 8 students in recreational levels, and 4-5 students in professional levels.

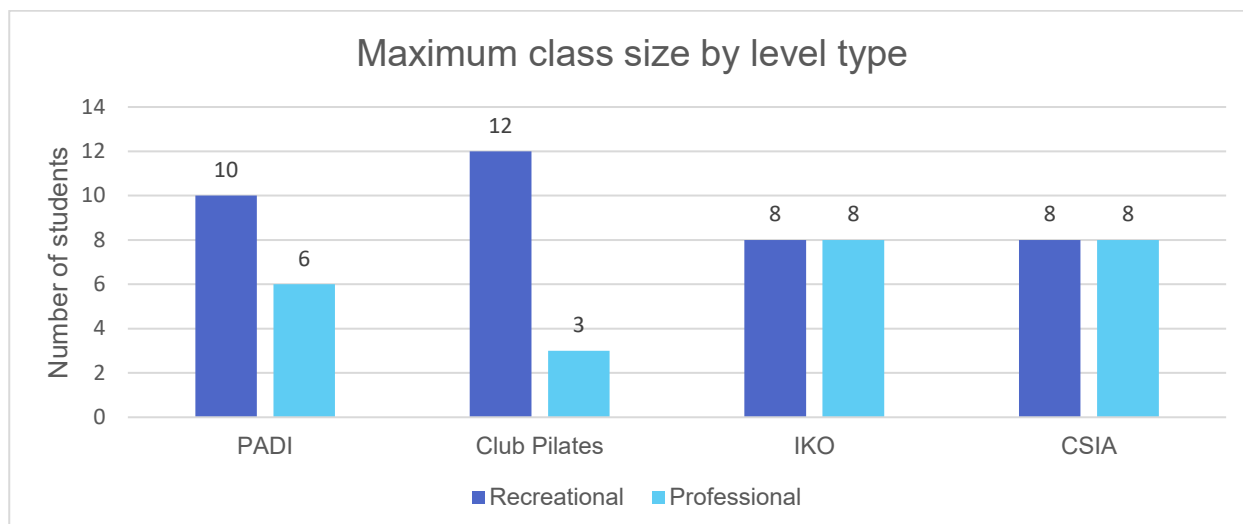


Figure 13. Bar chart of maximum class size of recreational and professional levels.

I observed the different class formats in all four systems, divided by recreational and professional levels. The majority of recreational levels focused on in-person classes, with Club Pilates and IKO exclusively adopting this approach, lacking any other form of learning (Figure 14). In contrast, CSIA had the most variety, consisting of self-review, in-person theory, practice classes and one-on-one discussion sessions. PADI blended both in-person class with theoretical self-study.

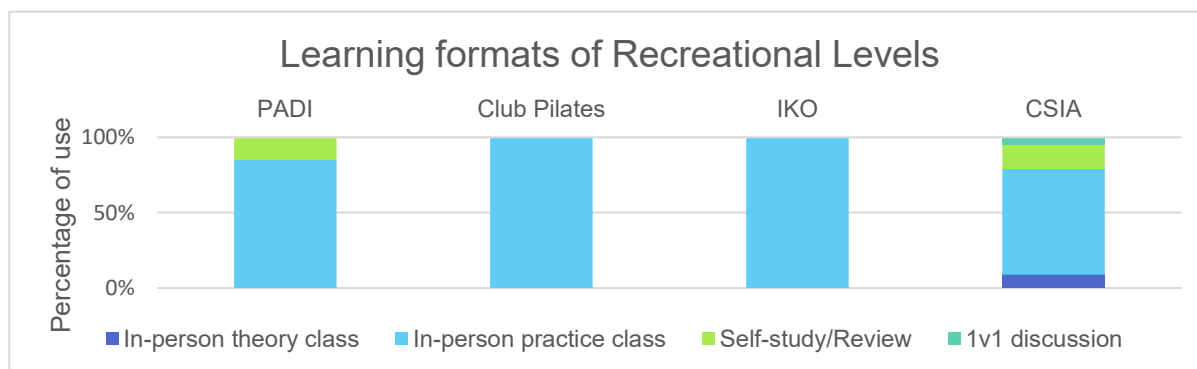


Figure 14. Stacked bar chart of recreational level class formats by percentage of use.

In contrast, I noticed professional levels to exhibit a broader range of variety in learning formats, ranging from online study to areas such as observation, as depicted in Figure 15. Notably, Club Pilates' teacher training level had the most variety in class formats, each contributing to the total 500-hour training requirement. Interestingly, online self-study dominated this level, requiring 150 hours of study. Additionally, Club Pilates incorporated both observation and self-practice formats, distinguishing it from the other systems. Both IKO and CSIA demonstrated the least variety in class formats. IKO consisted of only online study and in-person classes, whereas CSIA had only in-person technical and practical classes. PADI maintained a level of consistency in class formats across all

levels. It prioritized in-person practice, while integrating both online study and in-person technical classes as supplementary learning formats. Therefore, the type of class formats used necessitates consideration of the specific sport, the requirements of each level, and the practical aspects of mastering the skills of the sport.

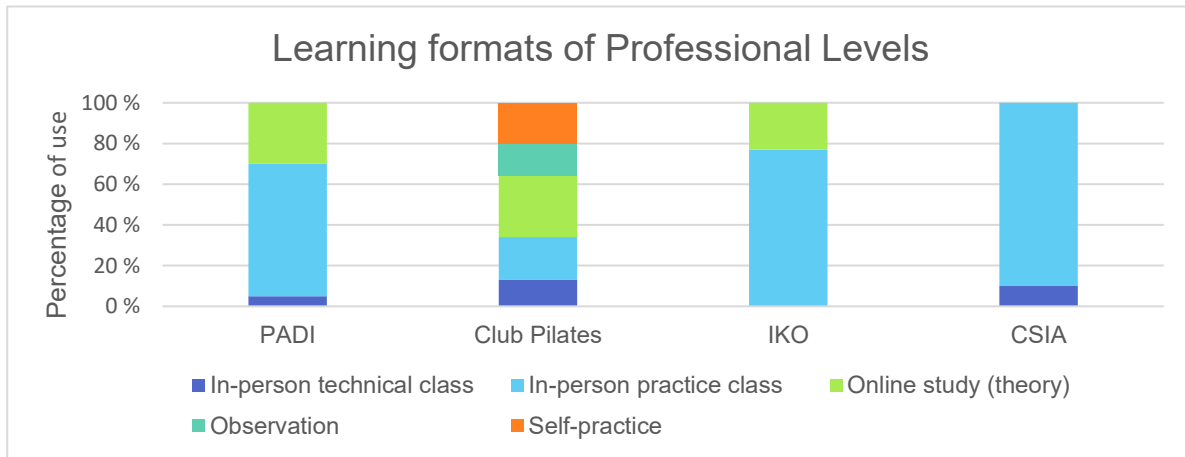


Figure 15. Stacked bar chart of professional level components by percentage of use.

Finally, I analyzed the qualifications of instructors, also divided by recreational and professional level instructors. This was due to the objectives of learning being fairly different between recreational and professional levels. Qualifications were graded from 1 (low requirement) to 5 (high requirement), taking into consideration the teaching experience, certification level and attainment difficulty (displayed in Figure 16).

Professional-level teacher qualifications were consistently ranked 4 or 5, indicating high standards across all systems. PADI was ranked at 5, as it mandates a very high-level certification to teach only the first professional level. Club Pilates was conversely ranked 5 due to the inaccessibility and difficulty of becoming a Master Trainer (likely selected and trained internally).

In contrast, the recreation-level instructor requirements varied widely, from 2 (Club Pilates) to 5 (PADI). Similar to the professional level, PADI demanded an Open Water Scuba Instructor certification to teach all recreational levels, which is fairly difficult to obtain. Conversely, although Club Pilates requires a total of 500 hours of study to teach, there were minimal prerequisites to joining the teacher training. Both IKO and CSIA fell within the medium to high range, with specific, yet attainable requirements.

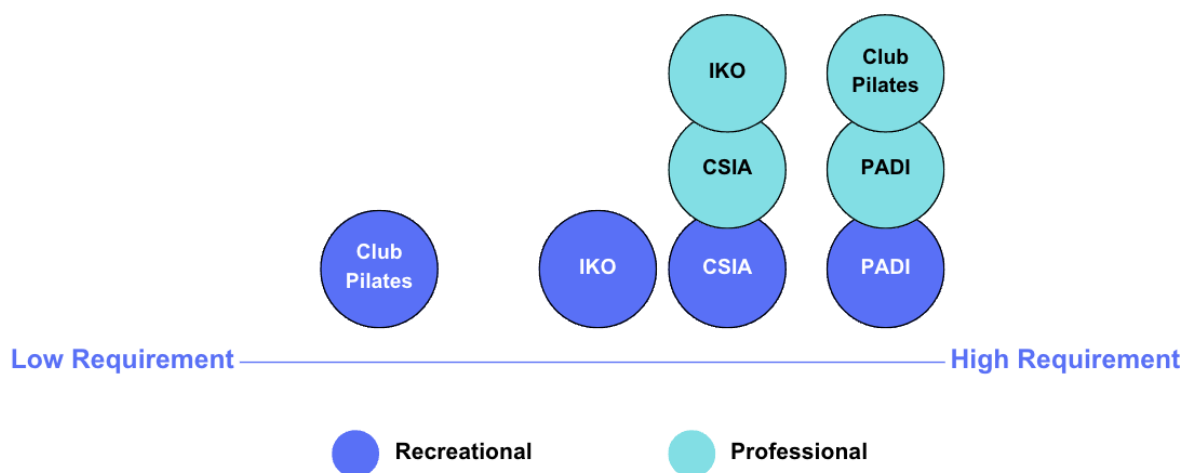


Figure 16. Instructor qualification requirements of recreational and professional levels.

During benchmarking, I further discovered an interesting teaching approach from CSIA, adding valuable insight to analysis. CSIA's "The Collaborative Approach" mirrors principles from the constraints-led approach and nonlinear pedagogy principles discussed in Chapter 2.2. The cyclical approach is tailored around an individual learner's needs, starting with an assessment of their physical skills, psychological factors and aspirations, comparable to performer constraints of CLA (Canadian Ski Teaching s.a., 1-2; Renshaw et al. 2010, 121). It then begins through experience (task) design. This considers the learner, environment, objective and skills, which all optimize the learner's experience. (Canadian Ski Teaching s.a., 2-3). Next, ongoing assessment helps to track progress and adjust objectives as needed according to the individual. Finally, the experience and assessment foster exploration of new and varied skiing skills to help the learner in future skill development. (Canadian Ski Teaching s.a., 4-5).

The learning approach of CSIA resonates with nonlinear pedagogy's emphasis on "the need to create learning experiences that are representative and supportive of individual learners" (Renshaw et al. 2010, 128). This development project drew inspiration from CSIA's teaching approach, as it aligns with the relevant theoretical and practical knowledge.

#### 4.1.4 Implications for development project

The benchmarking analyses of progression, level components and teaching approach gave valuable insight and practical knowledge of existing level systems and their best practices. These

insights were leveraged in the development of the Body Light Level Guide, guiding the structure, progressive pathway, and specific level components and teaching approach.

Structural design of the level systems varied from linear and nonlinear approaches, with differing levels of complexity. Incorporating flexibility within the progression, as seen in CSIA and PADI, could enhance learner engagement and adaptability. The integration of member and teacher tracks within CSIA's level structure was particularly relevant to the aim of encouraging members to become instructors. However, CSIA's prerequisite of existing skills for Level 1 did not align with Body Light's approach, necessitating insights from IKO and PADI from implementing a "discovery" beginner level.

The level components analysis highlighted distinct differences between recreational and professional levels, indicating the need for a contrast in component design between recreational and professional levels. Recreational levels observed important components to be safety, technical and practical training, and assessment of level progression. Professional levels prioritized components within teaching skills and assessment, such as communication, class programming, equipment use and theory, with a secondary focus on an individual's technical and practical skills. Assessment and certification of levels were observed to be of importance in all levels. Recreational levels focused on the assessment of passing a level, whereas professional levels focused on both assessment and certification of a level. The absence of formal assessment in Club Pilates' levels further highlighted the need for assessment measures in the development project.

The teaching approach analysis provided additional insights into previous findings. It emphasized the utilization of a variety of materials, especially in professional levels, to enhance the learning experience. I further observed that class formats typically consisted of a variety of formats, specifically in professional levels. Optimal class size was identified to be around 8 in recreational levels, and 4-5 in professional levels, with an emphasis on high quality instructors regardless of level.

As Club Pilates was within the Pilates industry, I had expected it to provide the most relevant insight. However, I found that it lacked many crucial factors, such as level assessment and diversity of learning formats in recreational levels. Conversely, the analysis from CSIA provided unexpected value to the development project. Not only did it offer a relatively simple and semi-flexible structure, it also aligned its teaching approach with nonlinear pedagogy and constraints-led approach principles, making it highly relevant to the development project. Overall, the insights gained from benchmarking played a role in the design of the Body Light level guide, ensuring the needs of individuals are met, while applying the best practices found in skill development and progression.



## 4.2 Focus group interview

To gain more insight on designing the level guide, I decided to involve target users in the co-creation of the level guide. Focus group interviews represent innovative approaches for uncovering new themes and insights (Ojasalo et al. 2022, 115), aligning with the significance of fostering an innovative angle in constructive research (Kasanen et al. 1993, 246). Therefore, a focus group was conducted in March 2024 with relevant Pilates members and instructors covering topics of motivation, progression and levels in Pilates.

Following the implications gathered from the benchmarking, the focus group was aimed to provide supplementary knowledge to existing theory and findings of this development project. The focus group further offered a new perspective: the target user. The primary goal of the focus group was to uncover the following:

- Understanding motivations of practicing Pilates among members and instructors
- Identifying progression perspectives of Pilates practitioners, and its impact on the individual
- Gaining target user perspectives & feedback on having a structural level system in Pilates

Following the goals of the focus group, the interview questions covered three main areas: motivation, progression and levels in Pilates (Appendix 1). Each of the questions related to previous findings and theories in this development project, as can be seen in Table 6. I drew inspiration for planning the focus group from Heinrichs' Master thesis (2014, 39-4) on creating a food brochure, which represents a good example of applying constructive research in Master thesis.

Table 6. Relation of interview questions with existing theory and findings.

<b>Interview Question Themes</b>	<b>Related Theory/Findings</b>
Personal motivations to begin and continue practicing Pilates; Areas of Pilates enjoyment	<ul style="list-style-type: none"> <li>– Chapter 2.3.2: Self-determination theory of motivation</li> <li>– Chapter 2.3.3: Motivation in Pilates &amp; yoga</li> <li>– Chapter 2.1.1 &amp; 2.1.2: Relatedness to loyalty, customer satisfaction and level of experience</li> </ul>
Perception of progression in Pilates & significance to individual participant; What aspects impact skill mastery	<ul style="list-style-type: none"> <li>– Chapter 2.2.1: Constraints-led approach in skill development</li> <li>– Chapter 2.2.2: Nonlinear pedagogy</li> </ul>
Structured levels in Pilates	<ul style="list-style-type: none"> <li>– Chapter 4.1.1: Benchmarking structures and progressive pathways</li> </ul>

To ensure a diverse representation of target users, I aimed for a varied range of Pilates experience among participants, including both members and instructors. Additionally, all participants were required to have attended at least one Pilates class to ensure familiarity with practice. The goal was to select a total of 6-8 suitable participants, aligning with best practices of focus groups (Ojasalo et al. 2022, 115).

Based on the participant criteria, 13 individuals satisfying these requirements were originally contacted, all of whom were acquaintances of either myself or Esther Tang. Due to the complexity of aligning with individuals' schedules and requiring them to be physically present, only six contacted individuals confirmed their availability to participate. However, this did take away from the representation of Pilates experience, such as an advanced member (over 2 years of practice), and a complete beginner with no previous fitness experience (only 1 Pilates class underway).

While this aligned with my target number, one participant cancelled last-minute. Given the group's emphasis on interactive discussion, I decided not to carry out a separate interview with the cancelled participant. Despite falling one participant short of the total intended amount, I expected to gain complementary information through the triangulation of the data collection methods.

Ultimately, the focus group consisted of five female participants (Table 7), each with differing Pilates experiences, aged between 28 and 38 years. The represented practice experience ranged from less than a month up to 2.5 years, consisting of members, instructors and a combination of the two. Interestingly, there were three participants with professional experience in fitness and Pilates, such as in rehabilitation, fitness training and Pilates certification training. These added relevant and deeper insights during our focus group discussions. Three of the five participants further emphasized that over time, they had stopped Pilates training for varying reasons.

Although virtual participation was considered, I decided to conduct the focus group in person. This decision was driven by the interactive nature of the focus group, where participation in person made visualization and discussion more fluent. I further deliberated whether to divide instructors and members into two separate focus groups, but ultimately decided to combine them into one. This choice was guided by the aim to facilitate new ideas and deeper conversation *between* the two representative groups.

The focus group took place on March 30, 2024, from 1:30pm to 3pm, lasting 90 minutes, and was conducted in Chinese, where I acted as the facilitator. I had prepared a presentation (Appendix 1) guiding the interview questions, with additional visual elements helping to facilitate interaction between the participants (Appendix 2). The audio of the interview was recorded and transcribed on Microsoft Word for better analysis post-interview. Initially I took notes to capture insights aligning

with the theoretical framework. However, I quickly realized that note-taking was distracting my active listening and interaction with the focus group. Consequently, I decided to rely on the audio recording for analysis, refraining from further note-taking.

Although all five participants represented a variety of Pilates experiences, they all had some level of experience within physical activity. Three participants (P3, P4, and P5) had professional experience in sports, whereas the other two (P1 and P2) had previous experience in sports such as weightlifting, swimming and rugby. This meant that a representation of complete Pilates beginners with no prior fitness experience was lacking, which may have impacted the results of the focus group. Future data collection of beginner members could be done outside this development project to ensure a proper representation within the beginner target group. As the main focus of this development project was the transition from member to teacher, I decided not to facilitate another focus group with beginner Pilates participants.

Table 7. Focus group participants.

<b>Category</b>	<b>Participant</b>	<b>Age</b>	<b>Pilates practice experience</b>	<b>Certification status</b>	<b>Remarks</b>
Member	P1	38	>1 month	N/A	Tried 4 Pilates classes, did not continue after
Member	P2	32	>1 month	N/A	Rehabilitation therapist as a profession, uses Pilates in work, but has only done 1 Pilates class herself.
Member	P3	28	1 year	N/A	Taking a break from Pilates classes due to the high price.
Member/ instructor	P4	33	2 years	In progress	Started Body Balance Teacher Training, but stopped eventually due to schedule restrictions. Continues as a member.
Instructor	P5	30	2.5 years	Certified	Background as a fitness trainer before Pilates

### 4.2.1 Motivations in Pilates

The focus group began with the topic of motivation. As all the participants were Chinese, a nominal group method was chosen (see Chapter 3.2.2), starting with an individually completed ice breaker question. Participants were asked to write down 1-4 initial motivations of practicing Pilates. Upon doing so, participants then placed their answers within a chart (Appendix 2), which I had divided into six general categories (see Figure 17).

I had initially anticipated participants' Pilates motivations to mainly cover physical factors, such as appearance and muscle tone, in line with the theoretical findings of motivation in Yoga and Pilates (Chapter 2.3.3). Surprisingly, the most common category covered was rehabilitation, with all five participants indicating it as a significant motivational factor in beginning Pilates. Areas of motivation in rehabilitation included safety, posture, stability, functional movement and injury. Physical motivations followed, specifically weight loss and the appeal of Pilates being "beautiful" and "cool". Notably, motivations related to mental and social aspects were relatively low, potentially related to the marketing focus of Pilates in China.

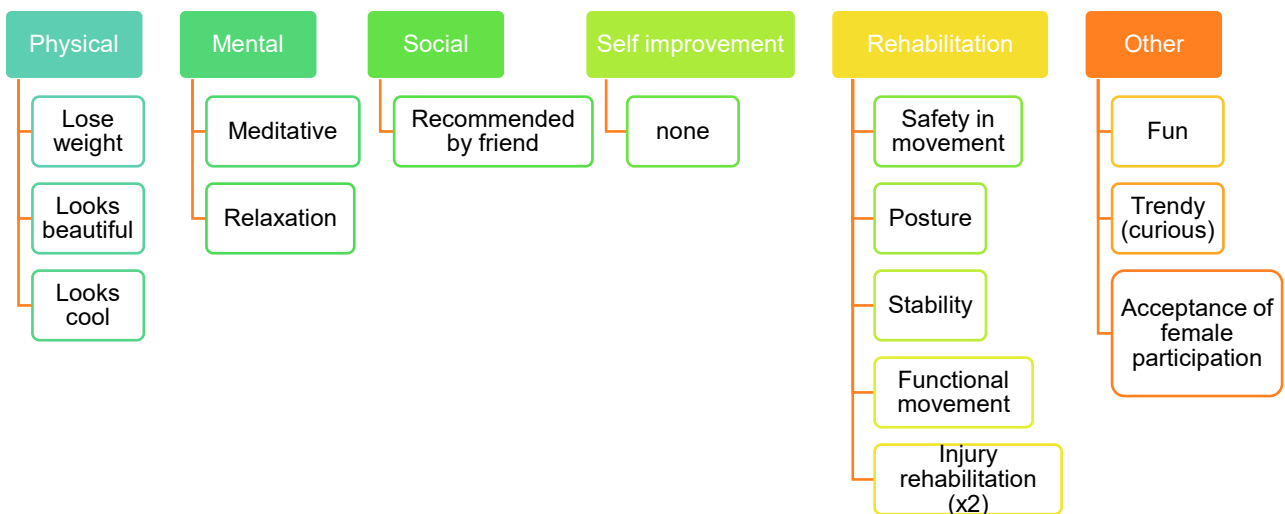


Figure 17. Participants' initial motivations to practice Pilates by category.

Many participants further explained that their initial attraction to Pilates was impacted by the marketing efforts of Pilates in China. Some of these perceptions market Pilates as very trendy and emphasize its suitability to women:

“In the Asian market, Pilates has a high acceptance for women (unlike weightlifting), and it looks really cool” – P4

“Pilates looks so soft and soothing; the movement seems so effortless.” – P1

“Pilates has suddenly become very popular in China, and I just wanted to try it out to see what it’s all about. The (Pilates) movements seem elegant, I think it fits the characteristics of women.” – P3

“(Pilates) has an aesthetic sense, a pursuit of beauty. A lot of my students start (Pilates) exactly because of that: it looks good.” – P5

Based on the experience level of the participants, I observed distinct differences of initial motivations to Pilates. Participants with less experience and knowledge of Pilates (P1 and P3), focused more on visible and external motivations, such as weight loss, posture improvement and external validation. These motivations lean towards performance (ego) orientation within Achievement Goal Theory (Chapter 2.3.1), where the focus is on comparison of one’s performance with that of others (Sit & Lindner 2015, 606). Within Self-Determination Theory (Chapter 2.3.2), the motivations were consistent with extrinsic motivation, where engaging in an activity derives from achieving an external outcome, such as health or looks (Ryan & Deci 2017, 14-15).

Meanwhile, participants with previous background in sports, such as P2 (rehabilitation therapist), P4 (several years of experience in different sports), and P5 (fitness instructor) focused on motivations such as safety, injury rehabilitation, muscle stability and fun. These motivations were mainly consistent with mastery (task) orientation of AGT, where self-development is valued over any outcome (Kuczek 2013, 129). As task orientation elicits autonomous behavior (Ntoumanis 2001, 400), experienced participants exhibited intrinsic motivations, seeking personal growth, competence and satisfaction through Pilates practice (Ryan & Deci, 2020, 2).

To assess the validity of theoretical findings of Park et al. (2016, 893) and Penman et al. (2012, 95, 99) on changes in motivation with experience time (see Chapter 2.3.3), I wanted to further explore whether this was applicable to the participants of the focus group. However, discussion on changes in motivation with experience time did not align with the theories. However, a theoretical link between impact of motivation type with personal satisfaction was contrastingly observed (Ntoumanis 2001).

In the changes of initial to continued Pilates motivation, I observed two clear consistencies with existing theory: initial motivations of extrinsic nature leading to unfavorable outcomes; and initial motivations of intrinsic nature leading to favorable outcomes. Two participants (P1 and P3), whose initial motivations were mainly extrinsic, eventually stopped practicing Pilates. As observed by Ntoumanis (2001, 399), ego orientation is focused on the actual outcomes of the activity, guiding the behavior of the practitioner. Furthermore, when the focus is purely on the outcome, the individual has a lower personal satisfaction within the activity itself (Ntoumanis 2001, 399), as seen with the experiences of both P1 and P3 (Figure 18).

In contrast, experienced participants P2, P4 and P5, who were originally motivated by intrinsic factors, continued Pilates practice with minimal changes to their nature of motivation (Figure 18). This observation serves to further support Ntoumanis' (2001, 400) theory, where when motivations are driven intrinsically, individuals are more likely to experience satisfaction in the process of mastery. The only exception was P4, who was both a member and participating in teacher training. Ultimately, P4 stopped the teacher training, but continued personal practice. The motivation for teacher training could potentially be seen as an extrinsic motivation, centered around the outcome of gaining a certification. With the inability to achieve the outcome, satisfaction was affected and resulted in stopping the teacher training.

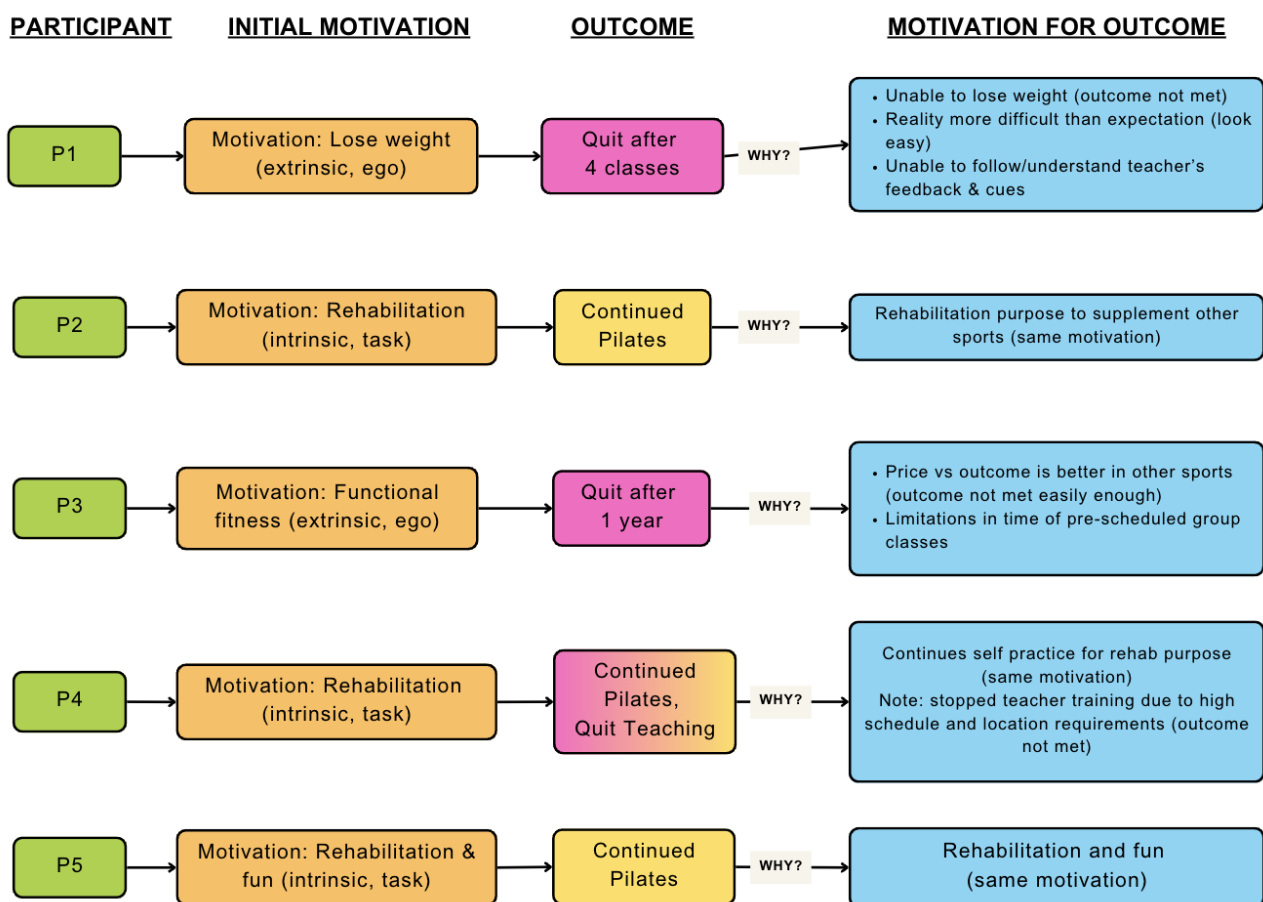


Figure 18. Participant motivations and outcomes.

I further observed validity between the theoretical knowledge of customer loyalty based on experience level (Chapter 2.1.2) and the results of the focus group. Dagger and O'Brien (2010, 1542-1543) note differences of loyalty formation between novice and experienced members, novice members' antecedent of loyalty being customer satisfaction, experienced members' antecedent to loyalty being service quality. For novice members, customer satisfaction resulted mainly from the expectation of the service, which was observed through P1's experience of having a large gap

between the expected and received service. This in turn resulted in dissatisfaction, leading to stopping Pilates practice (no loyalty formation).

Contrastingly, Dagger and O'Brien emphasize that experienced members' loyalty formation relies heavily on service quality, specifically through social and special treatment benefits (2010, 1542-1543). This was seen in part of the more experienced participants in the focus group (P2, P4, P5), where all three experienced participants had a higher level of commitment to continue Pilates for its perceived benefit in rehabilitation. However, it was not explicitly mentioned at this point what specific areas of service quality influenced their motivation to continue.

To expand on the above findings, we further discussed areas of customer satisfaction, specifically what factors matter the most in making Pilates more enjoyable. Participants were given four stickers each, which they were then to place within the different categories on the provided worksheet (Appendix 2). It is worth noting that P1 only placed two stickers, as she did not feel other factors mattered to her, whereas the other four participants utilized all four stickers. The results are visualized in Figure 19.

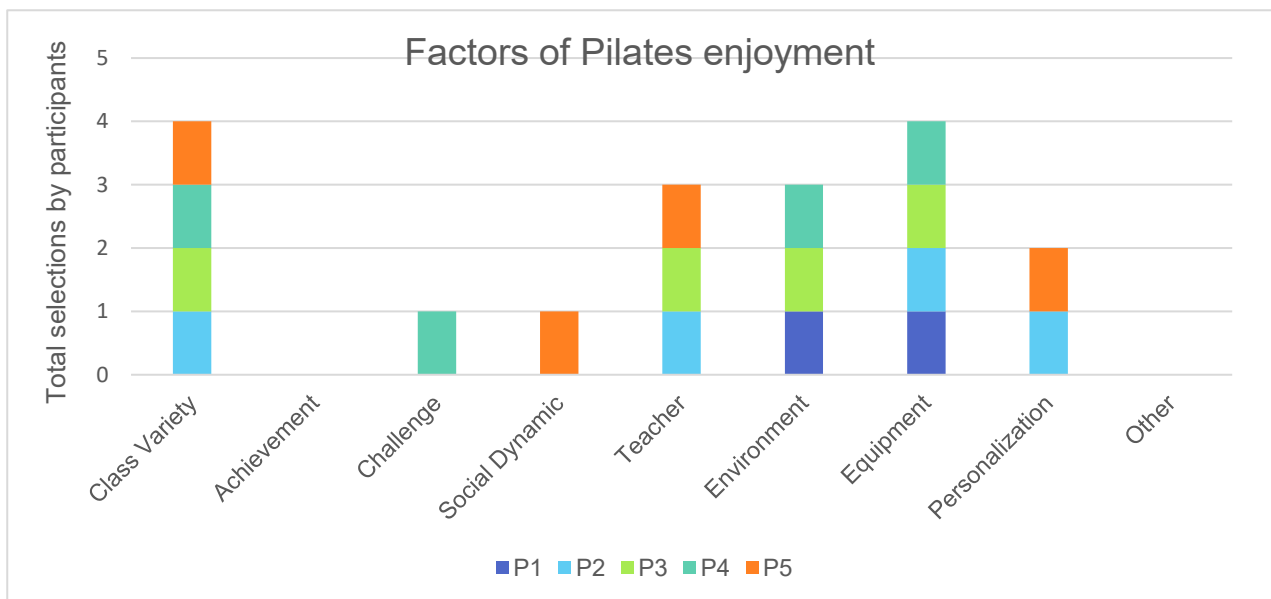


Figure 19. Stacked bar chart of factors affecting Pilates enjoyment by participant (n=5).

I had presumed that "Teacher" would be chosen as the most important factor in Pilates service quality, in line with theory from Chapter 2.1.1. However, the results revealed that while "Teacher" remained relatively important, "Class Variety", "Equipment" and "Environment" were equally, if not more, significant. Interestingly, both members with less experience (P1 and P3) focused on the importance of environment and equipment, supporting the theory suggesting that novice customers prioritize tangibles like physical facility, cleanliness and appearance (Dagger & Sweeney 2007, 32-

34). Further discussion revealed that environment and equipment make the experience more worthwhile for beginners:

“Pilates is like a holistic spa; the environment needs to fulfill (all the senses). When you enter (a studio), you should feel comfortable.” – P1

“I feel the equipment used and the environment represents how invested the studio is in its profession.” – P3

“If the environment is bright, clean, spacious and creates a sense of peace, it really enhances the whole experience for me.” – P3

The three more experienced participants mainly focused on the importance of teacher, class variety and personalization. It was further elaborated by P2, that the teacher should be the core aspect, influencing all other aspects. As mentioned earlier, more experienced customers base their loyalty on service quality, and this can be impacted through personalization, special treatment and exclusive services and pricing (Avourdiadou & Theodorakis 2014, 8-9; Gwinner, Gremler, & Bitner 1998, 109-110). This in part aligns with the findings of the focus group, where personalization was important, and choosing teacher implied areas within service quality, such as special treatment.

Interestingly, “Achievement” was not chosen by participants in contribution to making Pilates enjoyable, and both “Challenge” and “Social Dynamics” were also relatively insignificant. Contrastingly, many of the highly chosen areas align with the Scale for Fitness-Club Services (SFCS), emphasizing factors such as instructor quality, facility function, service assurance and program operations. This underscores SFCS’s focus on integrating both standardization and personalization within the same service quality model, aligning with factors identified as significant by participants like “Class Variety”, “Teacher” and “Personalization”. (Xu et al. 2021, 14).

#### **4.2.2 Significance of progression in Pilates**

The second part of the focus group centered around questions on progression in Pilates, its significance to the participant, and mastering skills in Pilates. The importance of these questions aligned with the skill development theories in Chapter 2.2, as well as the fundamental goal of creating progressive pathways in the development project. The first question asked the participants what constitutes as progress to them in their Pilates practice, i.e. how they view progress in their individual Pilates pathways and its importance. The answers of each participant can be seen in Table 8.

The overall consensus of all five participants concluded that “control” was a commonly understood definition of progress in Pilates, whether it be control of movement, muscles or breathing. P3 further explained that progress to her was two-fold: one focusing on movement progress, another on external physical progress. Furthermore, the importance of progress was deemed relatively



important by all participants, however it was noted that progress in “control” may be difficult to understand or see progress.

P1 stated that movement control was the progress she was aiming for, but she did not understand what it exactly meant or what to look for, which in turn led her to stop practicing Pilates. P4 and P5 both emphasized the importance of progress, but difficulty of seeing progress especially in the beginning: usually noticeable after 20-30 classes. It was further mentioned by the three more experienced participants (P2, P4 and P5) that complete beginners should begin with personal training classes instead of group ones, to ensure they understand the foundations and cues to Pilates.

Table 8. Definition of progress in Pilates by participant.

<b>Participant</b>	<b>What is progress in Pilates</b>	<b>Importance of progress in Pilates</b>
P1	Control, such as movements and muscles.	Visible progress is important for beginners such as myself. As I did not see or understand the progress made, I did not continue Pilates.
P2	Control of movements.	It's moderately important, but Pilates is more about supporting other sports' progression for me, so Pilates progress is not as straightforward in my case.
P3	Movement progress, such as flexibility and control; and external progress, such as posture and physique.	It's important, because seeing progress relates to sense of accomplishment, which is empowering.
P4	Pilates is centered around “Contrology” and stabilization, so progress to me is control of movement.	Very important, but sometimes hard to notice.
P5	Control of movements.	It's important. In the beginning I only understood the progress of movement control, but later I actually felt the control of my body in movements, which was very rewarding and motivating. Usually, visible progress happens after 20-30 classes.

Interestingly, there was also a mention of mind-body connection in regards to progress in Pilates:

(Progress in Pilates) “is also a process of getting to know yourself.” – P1

(Progress) “is interlinked with one's mental sense of accomplishment. If I can make progress with my body, I can also progress in other areas of life.” – P3

To further analyze the impact of progress, I asked all participants what their level of satisfaction in Pilates was (Figure 20). Surprisingly, the level of satisfaction was relatively low in all participants, where P1 and P3 had both stopped due to low satisfaction in their progress. It was further noted by

both P3 and P4 that although their current satisfaction was low, the anticipated satisfaction level of completing a teacher certification would be much higher.

Based on the questions regarding progression, I concluded that control of movement was a common understanding in defining progress in Pilates, and it was important to see this progress. However, there was a notable gap between understanding and seeing this progress, which might only become apparent after 20-30 classes. This emphasizes the importance of facilitating the understanding of progress and seeing progress within a shorter timeframe in the progressive pathway.

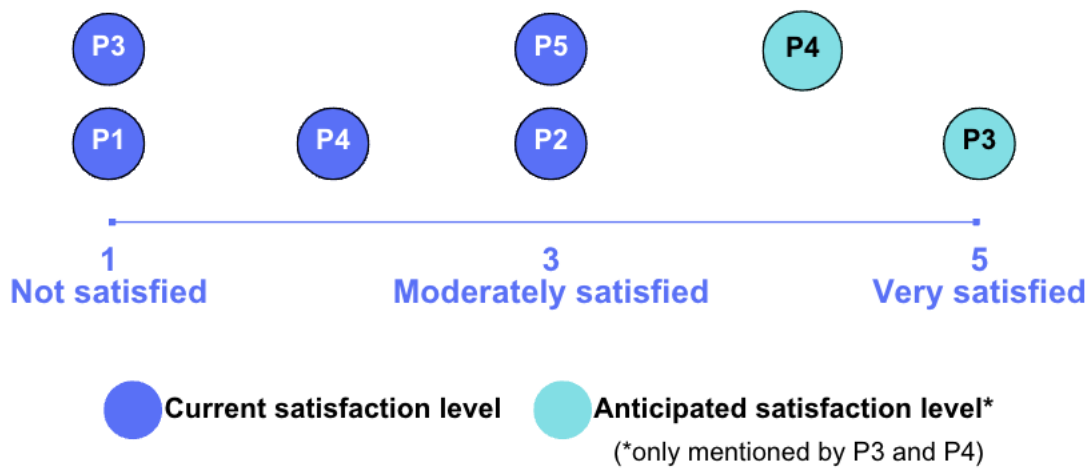


Figure 20. Current and anticipated satisfaction levels of participants' Pilates progression.

To understand how participants learn or master skills in Pilates, I inquired about their approach to mastering specific Pilates movement, drawing from the Constraint-Led Approach (Chapter 2.2.1). However, at this stage of the focus group, I noticed a couple of problems. I had written down examples of areas that could help with skill mastery (Appendix 1, slide 9), which resulted in the participants' response of "all of them are important". Therefore, I realized by doing so, I had discouraged participants to engage further into their individual thoughts on this question. The only additional comment to this question was made by P3:

"Teachers should further use simple analogies in their cues of movements. Like when pushing off the reformer, image pulling a rope. This is easier to understand and replaces complex cues."

Furthermore, participants were showing signs of fatigue after over an hour of discussions, and were not as enthusiastically involved. Therefore, this question lacks analysis, as there is

insufficient data from the focus group. Instead, I decided to incorporate skill mastery aspects into the observation process to gather more comprehensive insights.

### 4.2.3 Insights on levels in Pilates

Lastly, I wanted to understand participants' perspectives and feedback on having a level system within Pilates. I explained the initial idea of levels, progressive pathways and progression from member to teacher. Initial feedback was not too welcoming, with the following concerns raised;

“Not everyone wants, or is suitable, to become a Pilates teacher... I don't personally really care about levels; I care about my personal goals.” – P1

“If I were to become a Level 1 teacher, would students trust my qualifications?” – P3

“I don't think a member can become a teacher so fast, it should be only after around Level 4.” – P4

Mainly the concerns circled around two areas: the benefits of having levels to a member, and concerns about a teacher's capability with such a short time-period. However, when referring to Pilates group classes, participants agreed that having levels of group classes is necessary, where some sort of assessment should be done for new members coming to take a class.

Furthermore, P4 discussed her experience of taking group classes in Club Pilates, where a separate assessment class was required to participate in the higher-level classes. With a high skill level, P4 had found the requirement of doing an assessment slightly irritating, however, she also agreed that from the perspective of safety, it's crucial to have assessments of new members. She further noted that the requirements of group class teachers were not very high, classes focus on safety and having fun, which is enough for most members, and why (in her opinion) Club Pilates have been able to expand so widely.

With the raised concern of teacher qualifications and capability, the discussion on assessing a teacher's qualifications yielded some important knowledge for the development project. Participants emphasized the importance of knowing the teacher's background and certifications. However, with beginners, participants agreed that it's difficult to assess the qualifications of a teacher, and they rely more on the feeling of the teacher. P4 and P5 both agreed that if an individual can pass the assessments of moves, cues, teaching skills and specified hours of practice, it proves their readiness to teach. Through the discussion, I observed that while experienced members have higher requirements of a teacher's experience, beginners' expectations can be met more easily.

#### 4.2.4 Implications for development project

The focus group proved highly important to this development project, giving a plethora of insights into motivations, progression and levels in Pilates from the target user's perspective. Although some issues arose, the overall implications to this development project were many-fold.

Initially, I observed motivations driving individuals to practice Pilates differing between extrinsic and intrinsic. A notable trend was observed: novice members leaned toward extrinsic motivations, whereas experienced practitioners favored intrinsic ones. However, I noted a link between discontinued practice and members with extrinsic motivations. This was further highlighted in their perceptions of progress, where a low satisfaction level was observed, as they had seen little progress.

Furthermore, I noted that customer satisfaction varied based on Pilates experience. Novice members favored tangible aspects like environment and equipment, while experienced members emphasized service quality, such as expertise of teacher, class variety and personalization. Aligning with the Scale for Fitness-Club Services, which highlights the integration of personalization and standardization, this scale could be further utilized in the creation of the level guide.

Despite initial concerns regarding levels within Pilates, specifically credibility of new teachers, I found compelling support for the adoption of levels. As most participants were not satisfied with their progress, ensuring visible progress within a shorter timeframe could prove pivotal in the continuation of Pilates practice. Furthermore, participants considering teacher training anticipated their satisfaction levels to be higher, further supporting the idea behind having a lower threshold for teacher training. Having levels within Pilates training could help to ensure the following;

1. Members could clearly track their progress
2. Helping to understanding what progress in Pilates could look like
3. Having a shorter timeframe in achieving progress, and a clear progressive pathway
4. Facilitating teacher training from members with a lower threshold

As mentioned above, the implications of how Pilates instructors are perceived by members was noted highly important. Experienced members have higher understanding, and therefore higher requirements of Pilates instructors. Conversely, beginners are not familiar with practice, and therefore their requirements of instructors are more easily met. It was stressed that regardless of experience, instructors who master movements, teaching skills, cues, and pass relevant assessments, can effectively meet member requirements.

Moreover, in personal training, Morefun Fitness has observed that less experienced trainers face challenges establishing credibility with members. They have combatted these challenges by pairing novice trainers with novice members with simpler goals such as weight loss, facilitating training

through interactive movement and fun. This not only increases confidence and experience of trainers, but also satisfies the novice members' requirements. Such strategy could be further applied to Pilates, where beginner requirements are less demanding, allowing Pilates instructors to progress through teacher levels gradually.

However, the introduction of a visible level system may present challenges in comprehension and relevancy members may not understand it or find it relevant, as was initially seen in the focus group. Therefore, it's important to consider how to design and how to communicate levels within training to ensure it is not seen as unfavorable.

### **4.3 Observation and probe method**

The last phase of the development project in the formation of the Body Light level guide was implementing a pilot test of the gathered findings. At this phase, the first prototype of the level structure had already been formed (see Chapter 5.2), and the formation of the level guide had begun. Therefore, the next stage in this constructive research (Figure 5) was to test the functionality and viability of the planned construct (Ojasalo et. al 2022, 70). The purpose of this stage was two-fold: to partially test the validity, and to gain further knowledge in finalizing the level guide. Therefore, to conduct the final phase of this development project, three initial assessment classes of new members to Body Light were observed in late April 2024.

Data collection from the assessment classes was done through two methods: observation and probe method. Facilitation of these data collection methods would ensure method triangulation was achieved, further enhancing validation of the findings and gaining understanding from various perspectives (Carter et al. 2014, 545; Flick 2018, 23-24).

Observation was chosen as one data collection method for its ability to gain data on peoples' behavior in natural environments (Ojasalo et. al 2022, 117), which was an important consideration in the implementation of the assessment classes. A structured, non-participatory observation was conducted, where the focus was on collecting data through behavioral observation without active interaction of the observer with the participants (Lab8 2020) (see observation questions in Appendix 3). As observation is relatively limited, and cannot take into account the feelings and thoughts of the participants, the probe method was facilitated through diary entries of the participants (Ojasalo et al. 2022, 45). The diaries consisted of a planned outline (Appendix 4), where participants were asked to write a total of five diary entries over different timepoints. The benefit of using diary through the probe method is that it can give deeper contextual insight of the participant's behavior and needs, without bias (Hillenbrand 24 January 2019; Salazar 29 March 2024).

Originally, I had planned to conduct the pilot test on a partial teacher training. This would have involved participation of potential instructors in theoretical and practical teaching sessions, where the best practices of findings in teaching approach and level components would have been implemented. The purpose of this would have been to gain further knowledge on skill mastery and progression of skills based on the level guide. In the second internal meeting, we discussed the facilitation of the pilot test, and how to conduct the observation. Both the CEO, Alex Yang, and Head of Operations, Jiarui Jiang, emphasized that due to scheduling complexities and the comprehensive nature of teacher training, it would take a minimum of two months to begin implementing teacher training.

At this stage, we decided to change the pilot test from teacher training to assessment classes, to keep the development project moving. As the meeting had highlighted the importance of assessment classes, and the function of assessments as an entry point to the level structure, we agreed this to be relevant to the development project. Observation was to focus on three main areas:

- Applicability of best practices in teaching approach
- Participant engagement and response
- Skill progression and mastery

To supplement the areas of focus from the observation, the probe method focused on the perspective of the participating members:

- The comparison between expected and received service (customer expectation gap)
- Feelings and behaviors towards Pilates practice (based on the applied teaching approach and level structure)
- Main areas of importance of the class to the participant

Given the absence of participant number requirement in observation, I needed to decide how many participants were relevant to this development project. As each assessment class was planned to last a minimum of 90 minutes, I concluded that the class duration would yield a sufficient amount of observational data. Therefore, I decided that 4-6 participants would suffice for the observation. The participants had to further fulfil the following criteria:

- Be familiar with myself and the teacher, Esther Tang, to ensure that they felt comfortable during the class, especially considering they were being observed.
- Not be familiar with the development project, to ensure their behaviors and diary entries were relatively unbiased (could not be participants from the focus group).
- Have never taken a Pilates class with Body Light (new to the brand)
- Interested in Pilates, and/or having previous experience practicing Pilates
- Fit within the target market for Body Light: female, aged 25-45, university degree, Chinese, having a leisure budget\* of > 10.000 RMB/year.

As participants needed to be familiar with both myself and Esther, but unfamiliar with the development project, the potential participants were limited. After contacting six potential participants, four agreed to join, which fulfilled the set requirements. As all participants were familiar with myself and Esther, I further acknowledged that their familiarity with us could create bias in their answers, hesitating to offer criticism. The participants and their background can be seen in Table 9. To avoid confusion with the participants from the focus group, the participants of this observation will hereby be referred to as members (M1-M4).

Table 9. Participants of assessment class observation.

<b>Member</b>	<b>Age</b>	<b>Pilates experience</b>	<b>Other fitness experience</b>	<b>Education</b>	<b>Leisure budget/year (RMB)*</b>	<b>Other remarks</b>
<b>M1</b>	33	20 Pilates classes spread out over ~2 years (another studio in Chengdu)	Fitness (gym) 2-3 times a week for the past 2 years	Bachelor's	35 k	8 months post-partum; started Pilates for post-partum recovery
<b>M2</b>	31	1 Pilates trial class (another studio in Chengdu)	Fitness (gym) 2-3 times a week for the past year	Bachelor's	30-40 k	N/A
<b>M3</b>	34	No previous Pilates experience	Fitness (gym) 3 times a week for the past 4 months	Bachelor's	50 k	Motivated to start fitness due to her wedding in May (weight loss)
<b>M4</b>	34	No previous Pilates experience	Yoga 2-3 times a week for 1 year (currently stopped)	Bachelor's	40 k	Motivation to start yoga due to rehab of back injury

\*Leisure budget = money allocated to leisurely products and services (outside of daily consumption), e.g. physical activity, beauty, hobbies, travel etc.

I acted as the observer of the assessment classes, while Esther Tang conducted them as the teacher. Despite having privileged information about the development project, it was crucial for the teacher in this pilot test to understand the main areas of focus in the teaching approach. To minimize bias, I didn't disclose details of the observation or probe method to her. Instead, I gave her general instructions on what to focus on when teaching the assessment classes, based on best practices of level components and teaching approach from previous findings:

- Keep in mind each individual and their differences (personalization where needed)
- Adapt class based on individual needs and requirements
- Give ongoing feedback and assessment of each member
- Remember to implement easy-to-understand communication and cues to members
- If the member is a complete beginner, make the assessment class an “Intro to Pilates”, so the member gains understanding of Pilates
- Remember to integrate the member’s assessment within the level structure while explaining it to them

The observations were organized across three separate assessment classes (Table 10), with M1 and M2 participating in a joint 1v2 assessment class. While my initial plan had been to conduct all four classes separately, I agreed to let M1 and M2 attend the class together, as they were friends, facilitating familiarity in the class environment. Furthermore, from the discussion of Club Pilates’ group assessment classes in the focus group, I saw an opportunity to explore the feasibility of implementation at Body Light.

Table 10. Assessment class observation and diary entry dates.

Member	Assessment class date & time	Duration of assessment class	Diary entry dates
M1	Friday, April 26 16:30-18:20	1 h 50 min	26.4, 27.4
M2	Friday, April 26 16:30-18:20	1 h 50 min	25.4, 26.4, 27.4
M3	Monday, April 29 10:55-12:25	1 h 30 min	28.4, 29.4, 30.4
M4	Monday, April 29 18:00-19:25	1 h 25 min	28.4, 29.4, 30.4

#### 4.3.1 Implementation of teaching approach

The teaching approach of the pilot test focused on four main areas from the level guide: personalization and adaptability of the individual, clear communication and cues of the teacher, ongoing feedback to correct and encourage the member, and explanation of Pilates fundamentals to beginners.



The first area of observation was the personalization and adaptability of the class and movements according to the member. This emphasis aligns with the teaching approach of CSIA, as discovered through the benchmarking, which revolves around the capabilities of the individual. Similarly, non-linear pedagogy emphasizes the need to create learning experiences that support the individual learner (Correia et al. 2019, 117-118; Renshaw et al. 2010, 128). Overall, I observed both personalization of class content and adaptability in movements of the members. However, I did note a few differences, as can be seen in Figure 21.

M1	M2	M3	M4
<ul style="list-style-type: none"> <li>• Personalization: Asking about previous experience and concerns around pregnancy and post-partum.</li> <li>• Adaptability: Very little adaptation observed, as the member was more experienced, and M2 required more assistance. Perhaps movement difficulty could have been implemented higher for this member.</li> </ul>	<ul style="list-style-type: none"> <li>• Personalization: Taking into account the member's sore muscles from yesterday's workout.</li> <li>• Adaptability: Making modifications of movements, when the teacher observed the member struggling. Stopping a movement when member mentioned back hurting.</li> </ul>	<ul style="list-style-type: none"> <li>• Personalization: Changed class content to include lower body moves instead of core-focus, due to member being on her period.</li> <li>• Adaptability: Class difficulty and moves were based on the member's physical situation (currently on her period) and capability (continuously asking how she is feeling).</li> </ul>	<ul style="list-style-type: none"> <li>• Personalization: Personalized the class based on the member's previous injuries and remarks of uncomfmort.</li> <li>• Adaptability: Changed moves after member noted her back hurting or feeling uncomfortable (teacher continuously ensuring if a new move felt OK).</li> </ul>

Figure 21. Personalization and adaption of assessment class by member.

The initial discussions before the class consisted of assessing each member's experience, potential injuries or discomfort in the body, and their hoped class intensity. As can be seen from Figure 21, each member had different areas of focus in the class personalization, such as muscle soreness, injuries and other areas of health with the body. These personalizations were overall observed to be implemented according to the member, making each assessment class a little different, based on the individual requirements.

However, in terms of individual adaptability, I observed differences between M1 and M2 in the 1v2 assessment class. As the two members had varying Pilates experiences, where M1 was more experienced than M2, the adaptation of movements was unequal between them. M2 received more attention and adaptability from the teacher, while very few adjustments were made for M1, despite her more advanced skills. Interestingly, when comparing the dairy entries of these two members, I noted that M1 expressed overall satisfaction with the intensity of the class, whereas M2 felt frustrated and struggled to keep up with the moves and cues. This suggests that the assessment class may have been designed more towards M1's proficiency, requiring more changes for M2 during the class. This initial observation further highlights the potential ineffectiveness of group assessment classes.

Adaptability of the individual were both observed in the two classes of M3 and M4, where more focus could be given to the individual. The teacher would repeatedly ask both members how they were feeling, whether moves were making them feel uncomfortable or hurting them, and then adapt the move according to the member's response. Both M3 and M4 highlighted this in their diary entries:

"The instructor's attention to my feelings was on point. The teacher's focused attention to small details during the session was impressive." –M3

"Regarding the movements I found challenging, the instructor demonstrated how to use the equipment and how to coordinate breathing with proper posture." – M4

The second area of observation in the teaching approach was clear communication and cues of the teacher. This had been highlighted in the focus group, where P1 (complete beginner to Pilates) had difficulty understanding the instructor's cues, which had been a major factor in her stopping Pilates practice. Furthermore, the benchmarking analysis highlighted the importance of ability to communicate complex practices and utilization of cues in the teaching approach of all four level systems, which is why it was a major area of observation in the pilot test. The observations of communication and cues during the assessment classes varied greatly by member.

I wanted to compare the observed perception and the member's perception of the instructor's communication and cues, to see whether there were any discrepancies between the two perspectives. From my observation notes on communication and cues, I assessed the clarity of communication, the use of examples and metaphorical language, as well as utilization of suitable and easy cues to the member's experience. These were then ranked from 1-4, where 1 indicated difficulty to understand, and 4 easy to understand. I then analyzed the last three diary entries of each member, ranking the member's perceived understanding (1-4) on their emphasis on communication (positive vs negative), and how often they had mentioned it (Figure 22).

The results highlighted the importance of utilizing the probe method in addition to observation, as some of the results varied greatly between the observed and the member's perceptions. Although overall observed communication was relatively high (easy to understand), I did note that the observed communication clarity of M1 was much lower than that of the other three members. This may have been due to her previous experience with Pilates, where excessive communication is not necessarily required. However, regardless of this, I observed that many cues failed to translate into actionable responses from M1. The 1v2 class format could have contributed to challenges in communication to M1, as more focus and assistance were directed at M2.

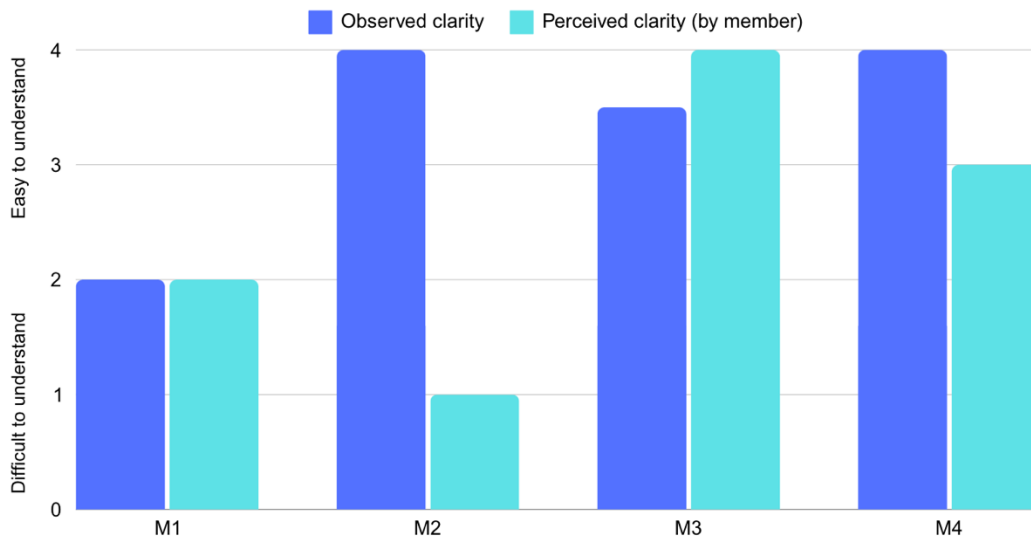


Figure 22. Bar chart of teacher's communication and cues clarity, observer vs member perception.

There were minor differences of the communication clarity between my observation and members' M1, M3 and M4 own perceptions. However, M2 had a drastic difference between the two perspectives. My observations of communication clarity for M2 were ranked at a 4, as I had noted the teacher using many metaphors, easy cues and ongoing communication, ensuring the member was following. However, upon analyzing M2's diary entries, I found that she had difficulty understanding many of the cues, negatively impacting her overall experience of the assessment class. This was apparent through different phases of the assessment class, as seen below:

"It's so difficult, I can't understand the teacher's cues." (during class)

"I don't understand the professional terminology, like what is the pubic bone and how it's connected (to the movement)." (during class)

"We're about to start using the reformer, but what the teacher just explained, I didn't understand, what am I going to do?!" (during class)

"I felt a lot of pressure, because as a novice, I find it very difficult to understand the cues." (post-class)

"Bad impression: I can't keep up with the cues quickly." (1 day after class)

An example in differing perceptions was noted on a specific cue the instructor used. When the members did a roll-down, I had initially observed the cue "joint-by-joint" as an easy-to-understand cue. However, M2 specifically noted she did not understand what this meant and how she was supposed to respond to it. Later, the instructor utilized another method, where her fingers traced the member's spine, while using the cue "little by little", which proved an improved means of an easy-to-understand cue.

Converse to the findings of M2's inability to understand most cues, I further observed areas of clear communication through the use of metaphorical language. The teacher utilized many examples of how the movement is supposed to feel like, which I observed to be good examples of easy-to-understand communication. Examples of these included:

“Breathe out, as if you were blowing a candle.”

“Imagine your back is curved like a C.”

“Image your body is between two glass panes.”

The third area of observation in teaching approach was the teacher's feedback and members' response to it. The observation of feedback centered around how the teacher communicated improving the member's performance (i.e. how to correct a move) and encouraging the members (i.e. positive feedback to motivate), as well as how the members responded through their performance.

I observed feedback to mainly fall within two categories, as noted above: positive feedback and corrective feedback. However, the level of feedback given to each member and level of response varied (Table 11). A clear distinction can be seen, where feedback and response levels are both lower with M1 and M2, and higher with M3 and M4. This could be explained by the class format, where more attention can be given to individuals taking 1v1 classes, as was seen with M3 and M4.

I observed two notable trends from the observation of feedback. First, a link between the level of given feedback to the level of response of the member. Members who received higher levels of feedback (M3 and M4) were notably more responsive to feedback, with immediate adjustment to movements from corrective feedback, and increased confidence in movement from positive feedback. Conversely, the two members (M1 and M2) that received lower levels of feedback, had varying levels of response, where M2 struggled to adhere to feedback, and no obvious emotional response was noted from either member from positive feedback.

Second, I observed a link between skill progression and movement mastery based on the nature of feedback given (i.e. ongoing small corrections), as well as the impact of positive feedback on confidence, which also played into the progression of a movement. The impact of feedback on skill progression and mastery has been further discussed in chapter 4.3.4.

The last observed aspect within the teaching approach was to introduce Pilates to complete beginners, so they simultaneously learn and understand the basic fundamentals of Pilates. This had been highlighted in the focus group, where Pilates fundamentals had not been properly taught to beginners, resulting in stopping practice. Furthermore, we had discussed the importance of beginners understand the basic fundamentals of Pilates and equipment safety in the second internal

meeting. Therefore, I had further required the teacher to include a Pilates intro into the assessment class, if the member was a beginner.

Table 11. Observed feedback and response to feedback.

Member	Feedback level	Feedback from teacher	Response level	Response to feedback
M1	Low	Corrective: "Move up more on the reformer", "Slower" etc. Repeating until achieved.  Positive: "Correct engagement of the core".	Medium	Immediate movement response to simpler feedback.  No clear emotional response to positive feedback.
M2	Medium	Corrective: "slower", "move down", "exhale down, not to the side".  Positive: Lots of positive feedback towards the end of the class: "nice", "beautiful" "yes, that's it!"	Low	Adapts to some feedback, but struggles with many moves.  No obvious response to positive feedback.
M3	High	Ongoing corrective feedback, e.g. "straighten legs more". Repeated until achieved.  Ongoing positive feedback, e.g. "Right! You're getting better and better.", "Very good", "Your control is great"	High	Adheres to corrective feedback as best she can, continuous feedback helps to achieve correct moves.  Positive response to positive feedback. Appears more confident in doing moves.
M4	High	Ongoing corrective feedback, e.g. "straighten back more", "move up a little bit", "go slower".  Ongoing positive feedback, "Very good", "Beautiful". Giving more positive feedback to this member compared to others.	High	Adapts and responds to feedback well (immediate changes in movement).  Appears more confident with each positive feedback given.

However, although there were three beginners in the assessment classes, I observed that implementation of Pilates introduction was not consistent. As this was something that had not been standardized, I observed the teacher either forgetting to introduce Pilates to the member in the beginning of the class (M2), or forgetting the correlation between a fundamental in relation to Pilates (e.g. forgot to explain the importance of breathing to Pilates for M4). However, areas that remained

consistent in introduction were explaining safety of equipment use, footwork on the reformer, what areas to engage and focus on when doing any move.

I further observed a teaching approach that the teacher used for beginners when teaching a new move. First, she explained and demonstrated the move to members, doing these two simultaneously. She then allowed the members to begin trying the move, slowly adapting and correcting it with cues and corrective feedback. She did not expect members to know how to do it at first, but instead guided them through the move step-by-step. I observed this approach to be rather effective, where members were initially confused at times, but slowly adapted to the move through step-by-step progression of the move, and through simultaneous practice and feedback.

#### **4.3.2 Member engagement and perceptions of assessment class**

While focusing on the observation of teaching approach, it was also important to observe the members' engagement throughout the class and gain further insights into their internal feelings and thoughts of the assessment class. Therefore, the second main area of observational focus was on the members' engagement during class. I rated the members' level of engagement based on the amount of active participation throughout the class, such as verbal communication, eye contact, and body language. The level of engagement throughout the class could indicate the member's motivations levels, where higher customer engagement is influenced by the individual's perception of an activity (Ntoumanis 2001, 400-401).

Members showed variability in their engagement levels and differences in their way of engaging during the class. In general, I observed active participation through verbal engagement (asking questions, responding verbally, engaging in conversation) and physical engagement (eye contact, body language). To visualize differences in engagement of the members, I ranked their overall, verbal and physical engagement from 1-3 (1 being low, 3 being high) and visualized in a bar chart (Figure 23).

Verbal engagement was the highest form of engagement among all members, where the initial conversation with the teacher proved highly engaging, members willing to discuss their wants, needs and expectations with the teacher in detail. Furthermore, verbal engagement was observed throughout the class, where members would reply verbally to questions or communicating their understanding or concerns with the teacher.

Physical engagement was observed to vary among the members, where M1, M3 and M4 showcased moderate to high levels of active engagement through eye contact, nodding and other gestures. Contrarily, M2 showed signs of inactivity through her body language (gaze wandering, walking around the class, looking at her phone), when the teacher talked about topics that were

irrelevant to her (e.g. pregnancy). This further confirmed the ineffectiveness of 1v2 classes, as it negatively impacted engagement of members.

I further noted that level of confidence and familiarity impacted the engagement levels of members. Having nearly two years of experience in Pilates, M1 showed high levels of overall engagement during the class, expressing her past experiences and skills at ease with the teacher, while maintaining eye contact and nodding in agreement with the teacher. The familiarity of the member with the teacher and myself may have also influenced engagement levels of the member. M3 was highly familiar with both myself and the teacher, and she appeared completely at ease during the class, resulting in higher levels of engagement despite being new to Pilates.

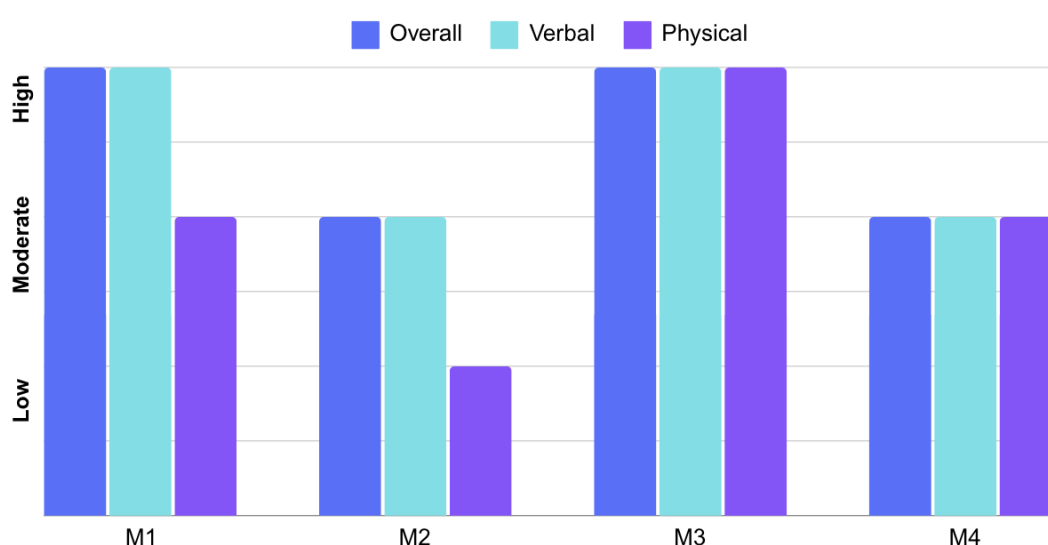


Figure 23. Bar chart of observed member engagement levels.

As was later observed, engagement levels of members (Figure 23) had some correlation with satisfaction levels (Figure 24), however they were not completely interdependent. For instance, while M4 exhibited moderate levels of engagement, her satisfaction levels remained relatively high during the whole experience. Conversely, M1 displayed relatively high levels of engagement, but more neutral levels of satisfaction. Therefore, based on the findings of this pilot test, although engagement is associated with overall experience, it is not a direct antecedent of satisfaction.

Based on the diary entries of members, I gained further insight into the members' perceptions of the assessment class, including what they liked and didn't like, as summarized in Table 12. The scores for the assessment class ranged from 4 (poor) to 10 (excellent), averaging at 7.6, indicating overall satisfaction. However, M2's negative experience had a notable impact on the overall score of the assessment class. Feedback from the members could be grouped into four main categories: teacher (and teaching approach), personal progress, class design and environment. Reflecting on

the theoretical framework, I observed these factors to align with three aspects of the Scale for Fitness-Club Services: facility function (environment, equipment), program operation (class design; personal or group classes), and instructor quality (teaching approach) (Xu et al. 2021, 4-5).

Members had varying thoughts and experiences with the teacher and her teaching approach. The teacher's attentiveness and gentle manner were highlighted as positive factors influencing the experience of M2, M3 and M4 (all beginners). Furthermore, M1 and M4 highlighted the professionalism of the teacher, where the teaching approach was better than what M1 had previously experienced. However, communication and cues of the teacher divided the members' opinions. M3 and M4 both expressed that communication was clear and easy to understand, whereas M2 found cues difficult to understand. Overall, the professionalism, reliability and knowledgeable guidance of a quality instructor from the SFCS (Xu et al. 2021, 10) were fulfilled, however, the teacher should further consider each individual's level of understanding in their teaching approach.

Personal progress during the assessment class was highlighted by all four members, with M2 highlighting it as a negative aspect, and the remaining three members emphasizing the positive impact. M1 stated that she was happy with her achievements during the class, M3 highlighted the good physical challenge of the class, and M4 focused on the importance of learning breathing and feeling lighter after the class. Conversely, M2 emphasized confusion during the class, where she did not see progress in movement mastery or understanding what her personal issues are. The findings of M2 are very similar to P2 from the focus group, who also had felt frustrated and could not comprehend her own progress in Pilates.

Class design was mentioned by all four members, seeing both positive and negative perspectives. Positive areas included the initial and final assessment of skills (M1 and M3) and the introduction to Pilates (M4). Areas of improvement included the initial movement assessment (M2), which had been seen as a positive by M1, as well as a better initial and final summary of key points (M4). However, both M1 and M2 noted that having the class together impacted some aspects of their experience negatively, such as privacy or individual attention. This further highlighted the importance of assigning suitable program operation to the service, which was individual classes in this case (Xu et al. 2021, 4).



Table 12. Members' score and feedback on assessment class.

Member	Class score	What they liked	What they didn't like (needs improvement)
M1	8	<p><b>Teacher:</b> very professional, better than the teaching of previous experience</p> <p><b>Progress:</b> happy with what I achieved during the class</p> <p><b>Class design:</b> good initial assessment of my skills, mat work before reformer helps to understand moves</p> <p><b>Environment:</b> large mirror is great</p>	<p><b>Teacher:</b> seems quite tired during the class</p> <p><b>Environment:</b> The studio is small and lacks privacy. Sweat stains on mats noted (wiped later). Yoga mat is slippery, affects balance. Music volume affects hearing the teacher.</p>
M2	4	<p><b>Teacher:</b> very nice, gentle and attentive to me</p> <p><b>Environment:</b> warm and comfortable, no strange odors, nice background music</p>	<p><b>Teacher:</b> Cues are difficult</p> <p><b>Progress:</b> I am not clear on my personal issues, and feel I did not learn the moves during the class</p> <p><b>Class design:</b> Frustrated with initial movement assessment, as I cannot do the moves well.</p>
M3	10	<p><b>Teacher:</b> easy to understand, provides good assistance, focus on small details, repeated feedback helps engagement</p> <p><b>Progress:</b> I felt comfortable and focused on my body, good amount of challenge, actively focused on my breathing now</p> <p><b>Class design:</b> fun and inspiring experience, good assessment</p> <p><b>Environment:</b> nice view from studio, thoughtful touches (drink stand, décor)</p>	None mentioned.
M4	8.5	<p><b>Teacher:</b> Calm and clear communication, patient, professional assessment and suggestions</p> <p><b>Progress:</b> breathing seems interesting, and can help to control the body, my body feels lighter and posture more upright</p> <p><b>Class design:</b> introduction of Pilates and importance of body control</p>	<p><b>Progress:</b> I don't have good control of my body (during class)</p> <p><b>Class design:</b> would be better to summarize key points before starting, and review them at the end, give suggestions for home practice.</p> <p><b>Environment:</b> studio is small, making it difficult for the teacher to demonstrate</p>

Furthermore, all members noted environment to be an important aspect of their experience, having both positive and negative impacts. This was very similar to the findings in the focus group, where beginners mentioned the importance of environment and equipment in their enjoyment of Pilates. In the pilot test, two beginners, M2 and M3, specifically highlighted environment as positive aspects in their assessment class:

(The environment is) “warm and comfortable with floor-to-ceiling windows, sunlight streaming in, it feels comfortable.” – M2

(My score is for) “the environment, background music (and the teacher’s gentle touch).” – M2

“When I walked in, I saw the nice view from the windows and noticed the big Pilates equipment in the center of the room, as well as some cute decorations and the beverage stand/counter, which was a thoughtful touch to the studio.” – M3

Not only does it align with the findings from the focus group, but it further strengthens the theoretical findings that beginners emphasize the impact of the environment (tangibles) leading to their satisfaction (Dagger & Sweeney 2007, 32-34), as well the impact of the facility to service quality and customer satisfaction (Xu et al. 2021, 10). Environment also impacted negative, especially M1 and M4, where the size of the studio was seen as too small, and equipment cleanliness was a concern. Although not detailed in the level guide, the tangible environment of studios should be carefully considered when designing the studios, to ensure that it creates a positive impact on members, and helps with customer satisfaction.

### 4.3.3 Customer expectations

I wanted to further analyze the feelings and thoughts of members during different stages of their experience with the assessment class. As they had been asked to write diary entries one day before, pre-class, during class, post-class and one day after, I was able to compare their expected and experienced service. I wanted to see whether there were any gaps in the expected experience, and therefore I assessed their level of satisfaction in by phase in the experience (Figure 24).

Based on the responses in the diary entries, I rated the emotional satisfaction level from 1-5 (unsatisfied to satisfied), depending on the balance of positive and negative remarks, as well as punctuation and writing style. Overall, the findings showed that three of the four members were mainly satisfied throughout the stages of the assessment class, whereas M2 had a relatively negative experience. Interestingly, the initial expected experience of the assessment class (day before) was very close to the final received service outcome (day after) of M1, M3, and M4. This indicates very little gap in their expected experience, which is favorable in this pilot test. Conversely, M2 indicates a rather large gap between expected and received service, which impacted negatively on her overall experience.

Overall, the highest level of satisfaction was seen during the post-class stage, where members had just completed the full class and were reflecting on the experience as a whole. From this stage, once members had had a day to settle, and recollected their thoughts of the class, their satisfaction level either stayed the same or dropped (did not increase for any member).

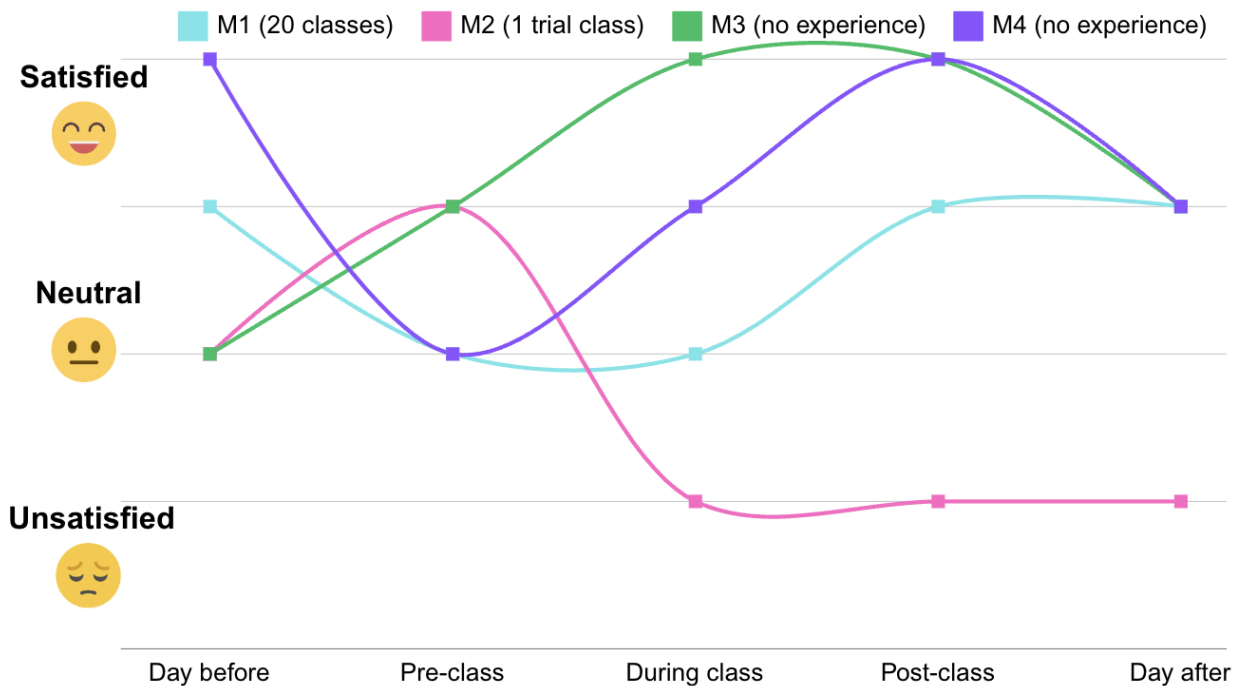


Figure 24. Line chart of members' satisfaction levels throughout the assessment class experience.

As I observed both the negative experience of M2, and the decline in the satisfaction a day after class in M3 and M4, I went back to the Scale for Fitness-Club Services (SFSC), to see whether it would give insight in how to best handle these situations. I found that implementing practices of service recovery and service assurance from the SFSC into future operations of Body Light could be beneficial. Service assurance entails standardized and transparent practices (Xu et al. 2021, 4), so if members were aware of what to expect during the assessment class, it would help to shorten the gap from expected to experienced service. Furthermore, service recovery requires management to respond quickly to correct any unsatisfactory service experiences of members (Xu et al. 2021, 4), which could further increase the perceived satisfaction levels of all members in the post-class phase. By implementing service assurance and recovery into the service, it would not only help to boost customer satisfaction, but also enable the combination of standardized and customized operations within the service (Xu et al. 2021, 14).

#### 4.3.4 Skill progression and mastery

As the focus group had not resulted in sufficient knowledge of skill progression and mastery in members and instructors, I wanted to gain more insight of this from the pilot test. However, due to the nature of the assessment class, where members were only observed for less than two hours, I had to compress data collection of this topic within the limited time. Additionally, I utilized the data collected through probe method to strengthen any observations I made.

During the analysis of my observation notes on feedback and response to feedback, I began seeing a correlation of between feedback and skill mastery. As three of the four members were new to Pilates practice, they struggled at first with many of the moves, writing their frustrations:

“I’m feeling confused, because fitness and Pilates are so different, such as breathing, movement, muscle engagement etc.” – M2 (during class)

“I feel like I struggle to control my body during the movements.” –M4 (during class)

My notes from the observation aligned with the above initial struggle to respond to feedback and cues. However, I observed a positive shift over time. With repeated corrective feedback during movement practice of the member, I started to observe progress. Remarkably, both M3 and M4 were able to master certain moves through the facilitation of repeated feedback during their practice. This type of skill progression highlights the information-movement coupling from nonlinear pedagogy, where practice should emphasize the combination of information and movement together to enhance learning (Davids et al. 2005, 25). I also observed increased confidence members as they mastered the moves and began performing them independently without the teacher’s assistance. M3 emphasized this through her diary entry, “The repeated instructions did help me be more engaged”. These observations further highlighted the self-determination theory on motivation, where competence drives the feeling of confidence and effectiveness, normally through positive feedback (Ryan & Deci 2020, 1).

Information-movement coupling was further observed through task simplification in practice design, where complex moves utilize the combination of information and movement through progressive mastery of the skill (i.e. step-by-step) (Renshaw et al. 2010, 124). In the assessment classes of all four members, even the most basic moves were observed to utilize task simplification. Beginning with the correct breathing technique, then adding the pelvic tilt, and finally a hip bridge, to master the Pilates Bridge move. Later, the same move was performed on the reformer, which added a level of resistance and instability (task constraint).

During the observation, I wanted to understand the best practices of implementation of the level structure. Upon finishing the class, each member had a final assessment discussion with the

teacher, going over their capabilities and areas of challenge. I had asked the teacher to assess each member's level and to briefly explain the potential progress in their future Pilates practice according to the created level structure. However, due to misunderstanding, the teacher forgot to mention the level structure completely in the first assessment class of M1 and M2, and struggled to implement it for M3 and M4 due to the lack of level criteria and curriculum.

Nevertheless, I was still able to gain insightful knowledge on the final assessment observation. First, clarity of communication was necessary not only during the assessment class, but also in the discussion of assessment results with the member. I observed where the teacher asked M3 her thoughts of the class, she not only was able to address the few concerns she had, but the teacher was able to turn it around for the better (service recovery). However, when communicating the final assessment with M2, the teacher had a long monologue, and I observed M2 began to disengage with the teacher. Therefore, having interaction within the final assessment is necessary, to ensure the member understands and is satisfied with the assessment class, and to make quick corrections where they are not.

Second, the importance of addressing individual member needs was observed, but they should be communicated in a standardized flow. I observed that the final assessments of each member included the following: what they did well, where they struggled, what their physical issues were, how they could improve and what the recommendations of Pilates were. However, with each member, the flow of information varied, and seemed to jump from one topic to another without a standardized flow. This was further emphasized by M4, stating that the teacher should repeat only the key points of the class at the end. Therefore, a standardized flow of the final assessment should be implemented, to make the discussion easy to communicate and understand.

#### **4.3.5 Implications for development project**

The implications of this last phase were pivotal in this development project: it tested the partial validation of the teaching approach and applicability of a level structure, as well as gave further findings to the development project to modify the level guide to its final version.

Based on the observations and probe method, the assessment class validated the importance of level components and teaching approach in the class, as had been previously benchmarked. It further validated the importance of applying fundamentals from NLP theory, such as information-movement coupling and task simplification in practice design. However, the observation also revealed that the assessment class format should take an individual approach, as 1v2 decreased efficiency, attention and satisfaction levels. This was further highlighted by the findings from the

focus group, where P2 had only attended group classes, which resulted in confusion of the participant's progress and understanding cues, similar to that of M2 in this pilot test.

Furthermore, teaching approach needs to be further refined, and components of the approach standardized, to ensure higher satisfaction of members and enable progression of their skills. Factors such as communication, feedback and intro to Pilates were highlighted as crucial in the teaching approach. Communication should be interactive, clear and concise, but also take into account the individual's level of understanding. Repeated corrective feedback on moves during practice partnered with positive feedback when done correctly seemed to aid in the progression of movement mastery, which should be further utilized in teaching. Lastly, including a standardized introduction of Pilates fundamentals should be implemented in each assessment class to beginners.

The teaching approach further highlighted the need for a standardized "flow" of the assessment class, explaining what the class entails, what are the key areas of practice and the expected outcomes. This would ensure that members know what to expect, and further prevent potential gaps in the expected service, leading to higher satisfaction levels. This should also be implemented into the final discussion of the individual's assessment, to ensure a clear and concise flow, and ensuring ease of communication and clarity to the member.

The SFCS, although specific to fitness gyms, was found to be a useful scale in optimizing services in Pilates as well. My observations aligned with the main factors of the model, including facility function, program operation, instructor quality, service assurance and recovery. The only factor missing was the staff performance, as it was not a part of the assessment class in this case. However, implementation of all factors should be considered in Body Light to ensure service quality. The SFCS influenced the formation of the level guide, in areas such as teaching approach and level components.

#### **4.4 Internal discussions**

Highlighting the importance of communication between researcher and commissioning company in constructive research (Ojasalo et al. 2022, 68), I maintained continuous communication with the relevant internal stakeholders of Body Light. The ongoing meetings and communication between the members (Table 13) were essential in maintaining efficient progress in the duration of the development project. The internal group working on the Pilates level guide consisted of the following members: myself, Alex Yang (CEO), Esther Tang (Head of Pilates) and Jiarui Jiang (Head of Operations).

There were two planned in-person meetings involving all members, which consisted of discussing current progress and presenting findings, brainstorming best practices together, and setting up

next steps and schedules. The details and outcomes of these meetings can be seen below in sections 4.3.1 and 4.3.2. It is also worth mentioning that although Table 13 displays most meetings and discussions, I had additional communication of related topics with both CEO, Alex Yang and Head of Pilates, Esther Tang, on multiple occasions in more informal settings and in passing. To facilitate ongoing communication among all four members, a WeChat group chat was created, to encourage asking questions, making remarks, schedule meetings and share relevant information.

Table 13. Key meetings and communication with core Body Light internal stakeholders.

Date	Participants	Topic
Aug 14, 2023	Alex Yang (CEO)	Initial task brief – what does the company need and why?
Sept 19, 2023	Esther Tang (Head of Pilates)	Discussion of the thesis topic, requirements and plan for collaboration
Jan 26, 2024	Alex Yang (CEO)	Discussing the initially proposed requirements and criteria for benchmarking, getting input from the CEO.
Mar 11, 2024	Alex Yang (CEO); Esther Tang (Head of Pilates); Jiarui Jiang (Head of Ops)	Presenting theory and benchmarking findings, gaining insight from other participants, brainstorming levels and structures together, and discussing next steps & timeline of each member.
Apr 20, 2024	Alex Yang (CEO); Esther Tang (Head of Pilates); Jiarui Jiang (Head of Ops)	Presenting findings from focus group interview. Discussing the requirements and facilitation of the observation/probe method, going over level guide structure and main areas.
May 15, 2024	Alex Yang (CEO); Esther Tang (Head of Pilates); Jiarui Jiang (Head of Ops)	Presenting the finalized level guide, conclusions of the development project.

#### 4.4.1 Internal meeting 1: Theory and benchmarking

The first planned in-person meeting involving all four internal members took place on March 11, 2024, from 16:00-20:00. The meeting had a flexible structure, where discussion and dialogue in-between sharing was encouraged. The CEO scheduled the meeting with the following topic outlines: theoretical and benchmarking findings for the development project presented by me, as well information on Pilates moves and skills within different skill levels presented by Esther Tang (Head of Pilates). Esther was responsible for designing the specific level requirements of Pilates, which was outside of the scope of this development project, but required this development project's output to be completed, therefore her and my work were closely intertwined.

The following topics were covered:

- Presenting theoretical findings
- The link between service quality, customer satisfaction and loyalty
- Skill development theories: constraints-led approach and nonlinear pedagogy, with examples from Pilates
- Different motivational theories and how they relate to fitness and Pilates
- Presenting benchmarking findings: structures, level components and teaching approaches.

Upon presenting my findings, we focused our discussion on the topic of designing the overall structure of the levels. An assumptive comment by the CEO was “we need a linear (inflexible) structure”, where further discussion on the topic proved that we actually needed some level of flexibility within the structure, as one of the goals is to encourage progression from member to instructor, and to promote a structure that is applicable to individuals of different backgrounds and experience. Therefore, completely linear structures such as those of IKO and Club Pilates were ruled out.

We further explored and discussed the progression within the CSIA structure, where recreational and professional levels are two tracks within the same level structure. Based on previous experience and knowledge within the fitness industry, both Alex and Jiarui validated the possibility in utilizing a similar type of structure within Pilates from a strategic perspective. Esther further gave insight from the training perspective, where she mentioned that only having one main instructor certification can be intimidating, as it creates a higher threshold for potential instructors. From her experience in Pilates training, Esther validated the idea of instructor progression by level, making the threshold to begin lower, and potentially encouraging more members to become instructors.

Therefore, it was decided that the structure would encompass a similar structural design as the one of CSIA, tailoring it to be more relevant and specific to Pilates. The level components and teaching approaches, although giving a good base insight, were determined to require further research to be applicable to the level guide. Therefore, it was decided that the focus group interview should cover more of these areas to supplement the making of the level guide in full.

At the end of the meeting, the next steps were decided. I was to begin the design of the first draft of the level structure, and make a plan for the focus group interview. Esther was to begin planning specific curriculum to pass the first level in member and instructor tracks.

#### **4.4.2 Internal meeting 2: Focus group and planning level guide**

The second in-person meeting convened on April 20, 2024, from 13:00-17:00, with the same participant as the initial meeting: Alex Yang (CEO), Jiarui Jiang (Head of Operations), Esther Tang (Head of Pilates) and myself. I coordinated the scheduling of this meeting, as I needed input from



the involved members on facilitating the observation phase. The meeting was planned to cover the following topics: presentation of focus group findings, discussion of the proposed level guide structure and planning the facilitation of the observation.

I first presented the findings of the focus group: initial and continued motivations of participants, progression in Pilates and feedback on having levels in Pilates. The discussion among all participants was highly interactive, with interest in the focus group findings, particularly the impact of motivation and progress on Pilates continuation. Based on the initial findings, there was concern from Jiarui whether having levels was necessary. However, we further discussed the implications and support of having levels within Pilates. The importance of facilitating understanding of goals and progress, as well as visible progress in a shorter time was highlighted as very crucial. Alex and Jiarui said they would implement this into their “product packaging” and operational customer communications.

By this stage I had begun the initial stages of the level guide formation based on the gathered findings from the theoretical framework, benchmarking and focus group (see Chapter 5). I presented the general level structure and level guide table of contents for further discussion. We decided the entirety of the level guide should be used mainly internally, but that it was relevant in explaining levels to members during their assessment of Pilates skills. In this instance, the level structure would act as added credibility of determining the member’s Pilates level and bringing awareness to progressive pathways. The level structure highlighted the importance of having an assessment class as a starting point for all new members, regardless of level.

Furthermore, we discussed whether “complete beginner” should be implemented within the structure at all. This was due to beginners seeming to have minimal understanding or interest in levels themselves, therefore questioning the relevancy of complete beginners within the Level Structure. To facilitate progress of complete beginners, Jiarui suggested they could design separate goals for beginners, before entering the Level Structure. This aligned with the extrinsic ego-centric motivations of beginners, and would facilitate visible progress, to boost customer satisfaction and loyalty.

Lastly, we discussed the implementation of the pilot test, including observation and probe method. Originally, I had planned to facilitate teacher training, however, the implementation would still take at least two months’ time to even begin. Therefore, we collectively decided that it was best to leave teacher training out of the development project, and test teaching training in full outside the scope. However, in relation to our previous discussions, we had highlighted the importance of assessment classes to the level structure and guide as a whole. The assessment class was viewed as the “starting point” to the structure and each new member, regardless of experience. Therefore, I

suggested doing the pilot test and observations of assessment classes instead. We all agreed on this, as it would be easier to facilitate, and would still produce relevant data to the development project. The next steps for me included planning the assessment requirements, main points of observation and applicability of probe method (or another alternative).

## 5 Formation of the Level Guide

The constructive research of this development project resulted in two distinct constructs: the Level Structure (Appendix 5) and the Body Light Level Guide (Appendix 6). While the Level Structure is an integral part of the Level Guide, it also functions separately as a visual depiction of the progressive pathways of members and instructors. The formation of the Level Guide and Structure was an on-going process that began upon the completion of the theoretical framework and benchmarking, and continued until the final analysis of the observation and probe method. The Level Guide applied findings throughout the different stages of research. To ensure the Level Guide stayed within the scope of the development project, I focused only on the structural elements supporting the Level Structure, including the level components and teaching approach.

The Body Light members and I opted for a bilingual version of the Level Guide, featuring both English and Chinese languages. This was essential, as the development project was conducted mainly in English, but the usability of the level guide would be Chinese. It was further highlighted that having English within the level guide could boost the credibility among Chinese viewers, positioning Body Light as an “international” company. While the majority of the Level Guide was able to adhere to having both languages within the same pages, three sections needed separate designs to ensure the relevant contents fit on the page. The Chinese versions of these separate page design can be seen in Figures 27, 29 and 33. I created the initial translations, which were later refined by the CEO, Alex Yang, to ensure proper language localization.

Based on the findings of the theoretical framework and research, the contents of the Level Guide can be seen in the Table of Contents in Figure 25. The Level Guide began with Sections 1-2 introducing and highlighting the importance of the guide. Sections 3-6 covered the level structure and skill progression, explaining the learning tracks within the structure, requirements of the initial assessment, and the progressive pathways individuals can take. The final sections 7-9 covered training and teaching components, as gathered from the benchmarking, and the teaching approach created for Pilates.

<b>TABLE OF CONTENTS</b>	<b>01</b>	<b>Introduction to Guide</b> 手册简介
	<b>02</b>	<b>Importance of Levels in Pilates</b> 普拉提级别的重要心
	<b>03</b>	<b>Pilates Level Structure</b> 普拉提级别框架
	<b>04</b>	<b>Training and Teaching “Tracks”</b> 训练和教学“轨迹”
	<b>05</b>	<b>Progressive Pathways</b> 渐进路径
	<b>06</b>	<b>Initial Assessment</b> 初步评估
	<b>07</b>	<b>Level Components: Training</b> 级别的组成部分: 学员
	<b>08</b>	<b>Level Components: Teaching</b> 级别的组成部分: 教练
	<b>09</b>	<b>Teaching Approach</b> 教学方法和教练要求

Figure 25. Body Light Level Guide: Table of Contents.

### 5.1 Introducing the Level Guide

The first two sections of the level guide were introductory and explanatory sections of the level guide, easing the reader into the core elements. Although they are at the beginning of the level guide, these two sections were created towards the end of the research, ensuring that all methods of data collection and analysis had been taken into consideration. The introduction page (Appendix 6) simply covered two areas: the overall purpose of the guide, and how it is meant to be used.

The second section “Importance of Levels in Pilates” (Figure 26) covered the reasons and benefits to having levels in Pilates, which were based off of findings from the benchmarking, focus group and pilot test. The reason for adding this page to the Level Guide was to establish understanding

to the reader on the reasons for having levels within Pilates, where it had initially been questioned by participants in the focus group.

BODY LIGHT

## IMPORTANCE OF LEVELS IN PILATES

### 普拉提级别的重要性

Motivations of individuals vary, but ensuring visible progress and understanding of that progress is essential. The level structure ensures this through many factors, as seen below.

每个人的动机各不相同，但确保明显的进步和对进步的理解至关重要。层级结构通过许多因素确保这一点，如下所示。



**Why have levels in Pilates?**  
**普拉提为什么需要级别？**

<ul style="list-style-type: none"> <li>• <b>Clear Progression:</b> Guides members through structured advancement.</li> <li>• <b>Training Pathway:</b> Provides a clear route for instructor development.</li> <li>• <b>Member-to-Instructor:</b> Facilitates a standardized progression to instructor with a lower threshold.</li> <li>• <b>Motivation:</b> Sets achievable goals and tracks progress.</li> <li>• <b>Tailored Instruction:</b> Allows for customized teaching based on skill levels.</li> <li>• <b>Consistency &amp; Standardization:</b> Ensures uniform assessment and standards.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>清晰的进展:</b> 引导学员通过结构化的晋升过程。</li> <li>• <b>培训路径:</b> 为老师发展提供清晰的路线。</li> <li>• <b>学员转老师:</b> 为成为老师提供了一个较低门槛的标准化晋级过程。</li> <li>• <b>动机:</b> 设定可实现的目标并跟踪进展。</li> <li>• <b>定制指导:</b> 根据技能水平提供定制化教学。</li> <li>• <b>一致性与标准化:</b> 确保统一的评估和标准。</li> </ul>
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Figure 26. Body Light Level Guide: Importance of Levels in Pilates.

From the benchmarking, the benefits of clear progression, training pathways and integration of member-to-instructor were highlighted in the guide. The focus group gave insights on motivational factors influencing Pilates practice based on experience level, where e.g. setting achievable goals was found crucial in the progression of beginner members. The findings from the pilot test further highlighted importance of combining standardization and personalization within the teaching approach and assessment of individuals.

## 5.2 Level Structure

The Level Structure acted as the core element within the Level Guide, with the rest of the Level Guide supporting it. The formation of the Level Structure began early in the research process, to ensure it aligned with the benchmarking process (Figure 8), where best practices of benchmarked targets should be applied and adapted through “benchlearning” and “benchaction” (Freytag & Hol-lensen 2001, 25). The Level Structure went through multiple modifications, implementing the find-ings from the focus group interview and the pilot test of assessment classes.

A clear indication of best practices in the structural design were noted through the benchmarking, particularly the integration of student and teacher tracks within the same structure. Highlighting flexibility in progression and maintaining a clear structure were pivotal factors in forming the level structure, to facilitate learner engagement and adaptability. The level structure took the most changes and modifications throughout its formation, with each internal discussion and data collec-tion method adding new relevant findings to be implemented.

The objective of member-to-instructor progression was noted highly relevant in the integration of member and teacher tracks from the benchmarked Canadian Ski Instructors' Association's (CSIA) Certification Pathway. Taking inspiration from the level structures of CSIA and PADI, I also in-cluded two additional levels within the teaching track (Instructor Trainer and Master Trainer), pri-marily focused on teacher training.

In the first internal meeting, we discussed the issues of time and high threshold of becoming a Pila-tes instructor, where transition to instructor should be facilitated in a relatively short and efficient manner, while ensuring level of quality in training. This supported having both training and teaching tracks within the structure, where we initially decided to begin the teaching level from Level 1. How-ever, the focus group highlighted concerns of credibility of Pilates instructors with very little experi-ence, which we later discussed to be valid. Therefore, we finally decided that the first teaching level would begin from Level 2, ensuring sufficient experience and practice, but still keeping the threshold to becoming an instructor relatively low.

With the facilitation of the focus group, difficulty of understanding progression of beginners was highlighted, which resulted in the addition of a mandatory assessment class, working as the “entry-point” to the whole structure. Any new member or instructor would need to complete a basic as-sessment of skills before being placed into the corresponding level. This would ensure that all indi-viduals' skill levels were assessed based on a standardized approach, and a flexible, nonlinear ap-proach could be facilitated within the level structure. However, I still observed difficulty from begin-ners in understanding progress, cues and communication in the implementation of the assessment

classes of the pilot test. Originally the Level Structure had started from Level 1, however, to address the difficulty in learning and understand of complete beginners, the “No Experience Beginner” level was added, consisting of 3-5 Pilates intro classes to ensure understanding and basic capability of beginners.

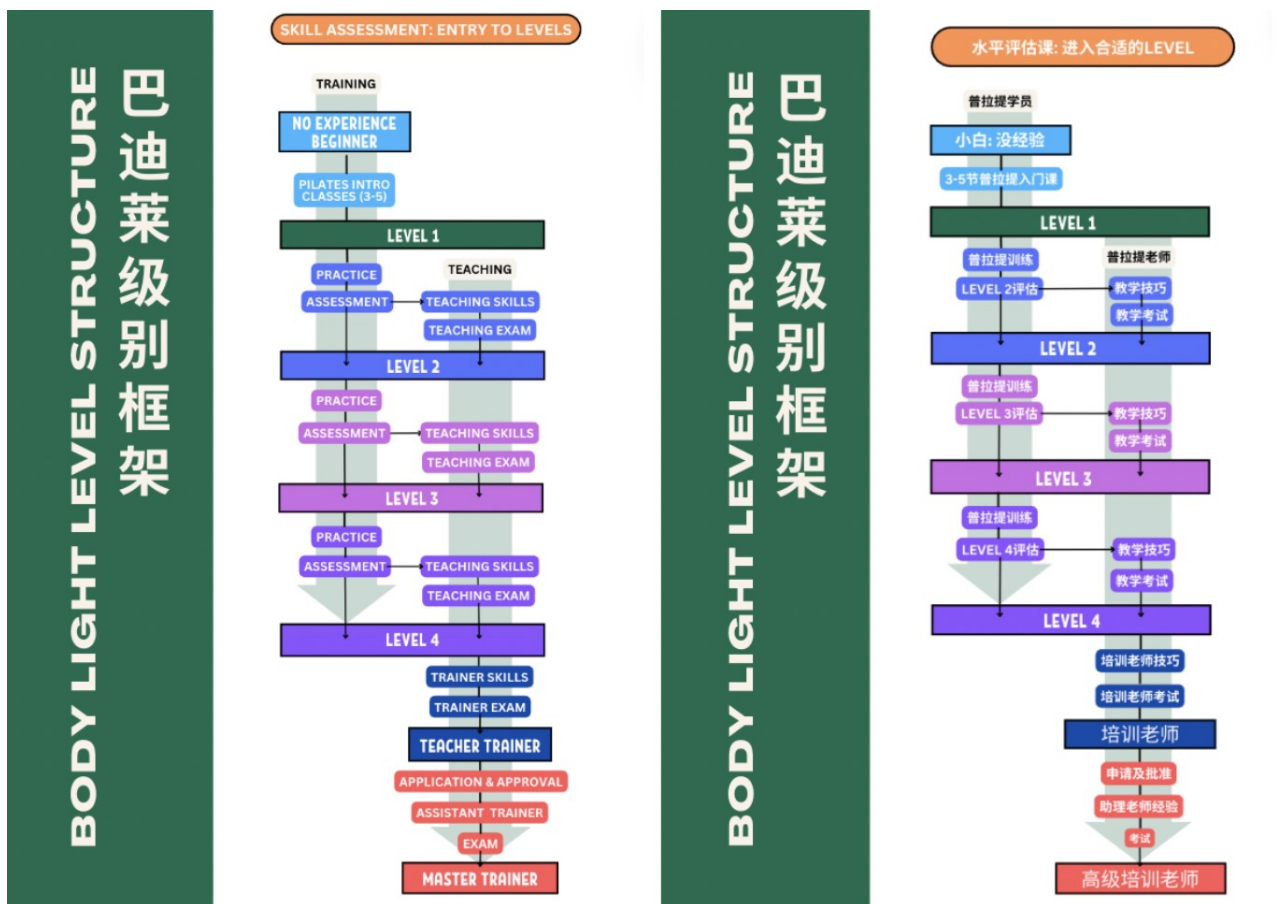


Figure 27. Body Light Level Guide: Body Light Level Structure (English version left, Chinese version right).

### 5.3 Progression of levels

The next sections 4-6 covered the progression within the levels more clearly. The fourth section, “Training and Teaching Tracks” (Figure 28) focused on explaining the two integrated, yet separate, progressive tracks, “Training” and “Teacher”. This section supported the previous section where the Level Structure was visualized, to understand the two tracks, what then entail and what are the requirements of each. The tracks within the Pilates level were influenced by the level system of CSIA, where two tracks were also introduced: Skiing and Instructor, which were then applied to Pilates in the Level Guide.

## TRAINING & TEACHING “TRACKS” 训练和教学“轨迹”

**The structure is divided into 2 tracks: Training and Teaching.  
Independent progression in training is encouraged. To progress in the  
teaching track, the training track & assessment of the corresponding level  
is a pre-requisite.**

**级别框架分为2个轨迹：学员和老师  
鼓励在培训中独立进步。要在老师轨迹上取得进步，学员轨迹和评估  
是先决条件**

Training Track 学员轨迹	Teaching Track 老师轨迹
<ul style="list-style-type: none"> <li>• Includes “Intro to Pilates” and 4 Training Levels based on skills</li> <li>• Each level includes: Pilates movement practice &amp; simple assessment</li> <li>• The assessment is informal, and based on the individual's ability of to do specified moves in the level and use equipment safely</li> <li>• “普拉提入门课”和总攻 4 个普拉提训练级别</li> <li>• 每个级别包括：普拉提动作练习和动作评估</li> <li>• 评估是非正式的，基于个人能做制定的动作和安全使用设备的能力</li> </ul>	<ul style="list-style-type: none"> <li>• Includes 3 Teaching Levels (Levels 2-4), and 2 Teacher Trainer Levels (Instructor Trainer &amp; Master Trainer)</li> <li>• In addition to the training track requirements, individuals must complete: teaching skills and teaching exam.</li> <li>• Each Teaching Level consists of a theoretical exam and a teaching assessment</li> <li>• Passing a level results in a Teacher Level Certification</li> <li>• 包括 3 个教学级别 (Level 2-4) 和 2 个培训师级别 (培训老师和高级培训老师)</li> <li>• 除了学员轨迹要求外，老师轨迹还必须完成：教学技能评估和教学考试。每个级别含理论考试和教课评估</li> <li>• 通过级别即可获得老师级别认证</li> </ul>

Figure 28. Body Light Level Guide: Training & Teaching Tracks.

To enhance the clarity of the Level Structure, the fifth section of the Level Guide explained the progressive pathways, and the capabilities of each level and track (Figure 29). The initial steps in the progressive pathway were based on the findings of this development project. The first step in the progressive pathway was an initial assessment of the individual's skills, which had been added based on the findings of the focus group and pilot test, to ensure standardization of levels. The second step was level placement based on the assessment of the individual's skills, highlighting the flexibility of nonlinear progression from the theoretical framework and benchmarking.

Furthermore, each level highlighted what classes the member could attend, or what classes the teacher could teach upon completion of the level. This indicates the opportunities each member or instructor has in each respective level, as well as maintains transparency and consistency throughout the Level Structure. It is further expected to help in planning and organizing classes based on the indicated capabilities of members and teachers once it is fully implemented in Body Light.



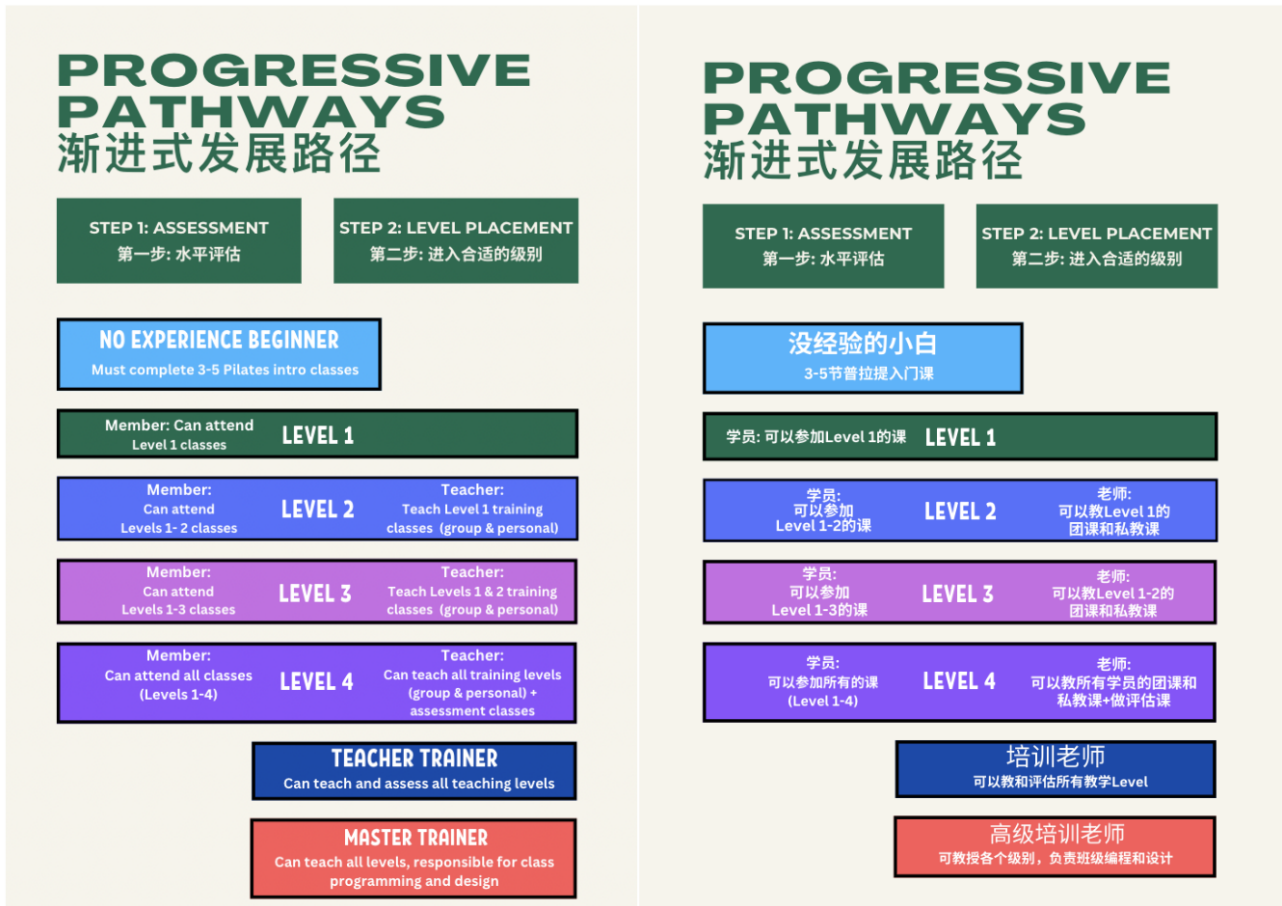


Figure 29. Body Light Level Guide: Progressive Pathways (English version left, Chinese version right).

As mentioned in the previous sections, a crucial component that was added to the level structure was the initial assessment of individuals. From the benchmarking, I noticed that none of the level systems were doing this, however, the focus group analysis indicated that any new individual coming to practice Pilates (member or instructor) should complete a skill (level) assessment. This would ensure proper placement within the level structure based on individual skills and experience. Findings from the pilot test on assessment classes further highlighted the importance of assessment class implementation, however, it gave further insight into how these should be conducted and implemented. By adding the assessment class component into the Level Structure, I was able to further ensure components of flexibility and a nonlinear nature in the level progression of each individual, as highlighted in the benchmarking progression analysis.

In the Level Guide, the “Initial Assessment” section provides a detailed review of the initial assessment class and the requirements for implementation (Figure 30). This section incorporated insights

on the best practices of assessment classes, as observed in the pilot test and through probe method. These findings highlighted the inefficiency of group assessment classes, thus assessment classes emphasizing a 1v1 class format based on the individual.

## INITIAL ASSESSMENT 初步水平评估

**What is it?** A 1v1 class assessing the individual's skill level based on movement ability, response and discussion.

**For who?** For anyone new to Body Light, regardless of experience, both members and instructors.

**Purpose?** To assess skill level based on a standardized structure, and ensure correct placement into further progression. To further assess the individual's needs and create a Pilates plan to meet those needs.

是什么？一堂课根据运动能力和沟通能力评估学生的技能水平。

给谁？对于刚接触巴迪莱的任何人，无论经验如何，学员和老师都要做

目的？根据标准化结构评估技能水平，并确保正确地进入进一步的发展。

### Assessment implementation requirements:

#### 评估课应满足以下要求：

- Class expectations: explain the flow of the class, what is the purpose and what are the expected outcomes
- Personalization & adaptability: consider the needs (including difficulty level), experience and physical capability of the individual. Adapt the class and moves based on their requirements.
- Communication: Easy cues, repetitive feedback (correcting and positive), using metaphors and interactive communication (questions & preferences)
- Assessment results: level in Body Light level structure, plan for progression (either based on levels, skill or personal goals)
- 课程期望：解释班级的流程、目的是什么以及预期结果是什么
- 个性化和适应性：考虑个人需求（包括课程难度）、经验和身体情况。根据个人要求调整课程难度和动作。
- 沟通：简单的提示、重复的反馈（纠正和积极）、使用隐喻和互动沟通（多问意见和偏好）
- 评估结果：适合放在哪个级别、进展计划（基于级别、技能或个人目标）

Figure 30. Body Light Level Guide: Initial Assessment.

The implementation requirements align with the findings from the pilot test, and drew insights from the focus group and theoretical framework findings. These requirements include the implementation of class expectations (leveraging the service assurance from the Scale for Fitness-Club Services), personalizing the assessment class based on the individual, engaging and clear communication and outlining the future plan based on the assessment level. These requirements aim to facilitate a clear assessment and comprehension of each individual's level, as well as helping to set achievable goals. This is especially important for beginners, who were found to benefit from extrinsic motivation (goal-orientation) as evidenced from the focus group discussions.

#### 5.4 Level components: Training and Teaching

As the findings from the benchmarking showed differences in components between recreational and professional levels, I ensured the Level Guide reflected these differences. The Level Structure (Figure 27) shows the levels within the Training track to include “Practice” and “Assessment”, whereas the Teaching track has the added “Teaching Skills” and “Teaching Exam”. The Teaching track has a pre-requisite of completing the Training track components before advancing to the components within the Teaching track, and therefore the training components are not further mentioned in the teaching components.

The training level components consisted of two main areas: Practice and Assessment (Figure 31). The components of practice first entailed specific movements and hours of practice in each level. The level component benchmark (chapter 4.1.2) revealed a few consistencies in level components across the benchmarked recreational levels: technical training, practical training, safety and a form of assessment. These four components were also reflected in the “Training Level Components” section in the Body Light Level Guide. Technical training in Pilates emphasized practicing movement fundamentals before progression, e.g. from mat to reformer progression, as seen in Club Pilates (2024). Furthermore, this aligned with the design aspect of task simplification in nonlinear pedagogy, which was observed in the pilot test in movement mastery through step-by-step progression.

Practical training is the core component of the Training levels, where focus is on the repetition of moves in practice, combined with ongoing feedback, to ensure information-movement coupling is achieved. The effectiveness of information-movement coupling was observed through the pilot test, where members mastered new moves through repeated practice and feedback (information) from the instructor throughout their practice. That is why a specific number of training hours will also be implemented into each level, to ensure members gain enough practice before progressing to the next level. Through practical training, the use and safety of equipment can also be covered, completing the components of Practice within the Training track levels.

Lastly, each level will end with an assessment of skills before the member can progress to the next level. This is a relatively informal means of assessment, and easier compared to the initial assessment discussed in the previous chapter. Based on the specified moves of the relevant level, members will be assessed whether they have mastered the moves and use of equipment. Once assessment is confirmed, the member can move to the next level or the equivalent level Teaching level (starting from Level 2).



## 学员级别的组成部分 TRAINING LEVEL COMPONENTS

### 01. PRACTICE 动作练习

- Specified moves and practice hours of each level (1-4)
- Technical training: Begin with movement simplification (step-by-step), first on the mat, then move to reformer.
- Practical training: Repeated training and feedback through practice for progression.
- Knowledge of equipment use and safety

- 每个级别 (1-4) 的指定动作和练习时间(小时)
- 技术练习: 从动作简化开始 (逐步), 先在垫子上, 转向器械
- 实践练习: 通过练习不断反馈以促进进步。
- 器械使用及安全知识

### 02. ASSESSMENT 学员评估

- Assessment: ability to do specified movements & use equipment
- Completion of assessment results in moving to the next training level, or the equivalent teacher training level

- 评估: 进行特定动作和使用设备的能力
- 完成评估后可进入下一个培训级别或同等的教师培训级别

Figure 31. Body Light Level Guide: Training Level Components.

Moving to the Teaching levels requires members to first complete the equivalent practice and assessment level within the Training track, to ensure they have gained a sufficient amount of technical and practical training, as well as knowledge of Pilates. Therefore, this was stated as the first component within the Teaching Levels page (Figure 32). Furthermore, I observed from the benchmarking of level components, that professional levels (Teaching levels) had a much higher focus on teaching skills, personal skill development and assessment. These are reflected in the Level Guide through the emphasis on components of Teaching Skills and Teaching Exam. The majority of technical and practical training was allocated within the Training Level Components.

Teaching Skills covered many of the components found in the Teaching Approach (next chapter 5.5.), including clear and easy-to-understand communication and cues, understanding how to modify moves for different levels and capabilities, the use and safety of equipment from the teacher's perspective, theoretical knowledge. Practical training within the Teaching Level components

focused mainly on teaching practice and self-practice of moves, as was seen in Club Pilates from the benchmarking. Class programming was not added to the Level Guide, as it was decided by the internal members of Body Light to be a separate project of standardized class programming.



## 教师的组成部分 TEACHING LEVEL COMPONENTS

### 01. TEACHING SKILLS 教学技能

- Follow pre-requisites of Training levels (practice and assessment)
- Communication and cues for teaching: simple, using metaphors.
- Movement modification
- Equipment use and safety
- Theory (incl. anatomy)
- Practical training (teaching & self-practice of moves)

- 完成学员级别的先决条件（练习和评估）
- 教学的沟通和口令：简单，用比喻
- 动作调整
- 器械使用及安全
- 理论（包括解剖学）
- 实践训练（教学+自己练习动作）

### 02. TEACHING EXAM 教学考试

- Theoretical written exam (online)
- Teaching demo assessment (online video or in-person)
- Results in teaching certification

- 理论考试（线上）
- 教学课程评估（在线视频或现场）
- 获得教学认证

Figure 32. Body Light Level Guide: Teaching Level Components.

The assessment of Teaching levels was decided to be a more formal means, where participants would need to complete a written, theoretical exam to test their knowledge of Pilates and anatomy. This would be implemented online, to make the process more efficient. Furthermore, a teaching exam, consisting of a pre-determined demo class, would be required for the individual to pass the level and receive a teacher certification. This would be implemented online through video, or in-person, based on the circumstances of the studio and participants. The importance of attaining and assessing teacher skills had been further emphasized in the focus group, where participants agreed if a teacher could pass the assessment of moves, cues, teaching skills and specified hours of practice, it would prove their readiness to teach.

### 5.5 Teaching Approach

The last section of the Level Guide consisted of a Teaching Approach created for Pilates (Figure 33), where the integration of standardization and personalization led the individual’s progression in the Level Structure. The Teaching Approach was highly influenced by the benchmarked “The Collaborative Approach” of Canadian Ski Instructor’s Association (Canadian Ski Teaching s.a., 2), where the cyclical teaching approach combined experience creation, assessment and exploration.

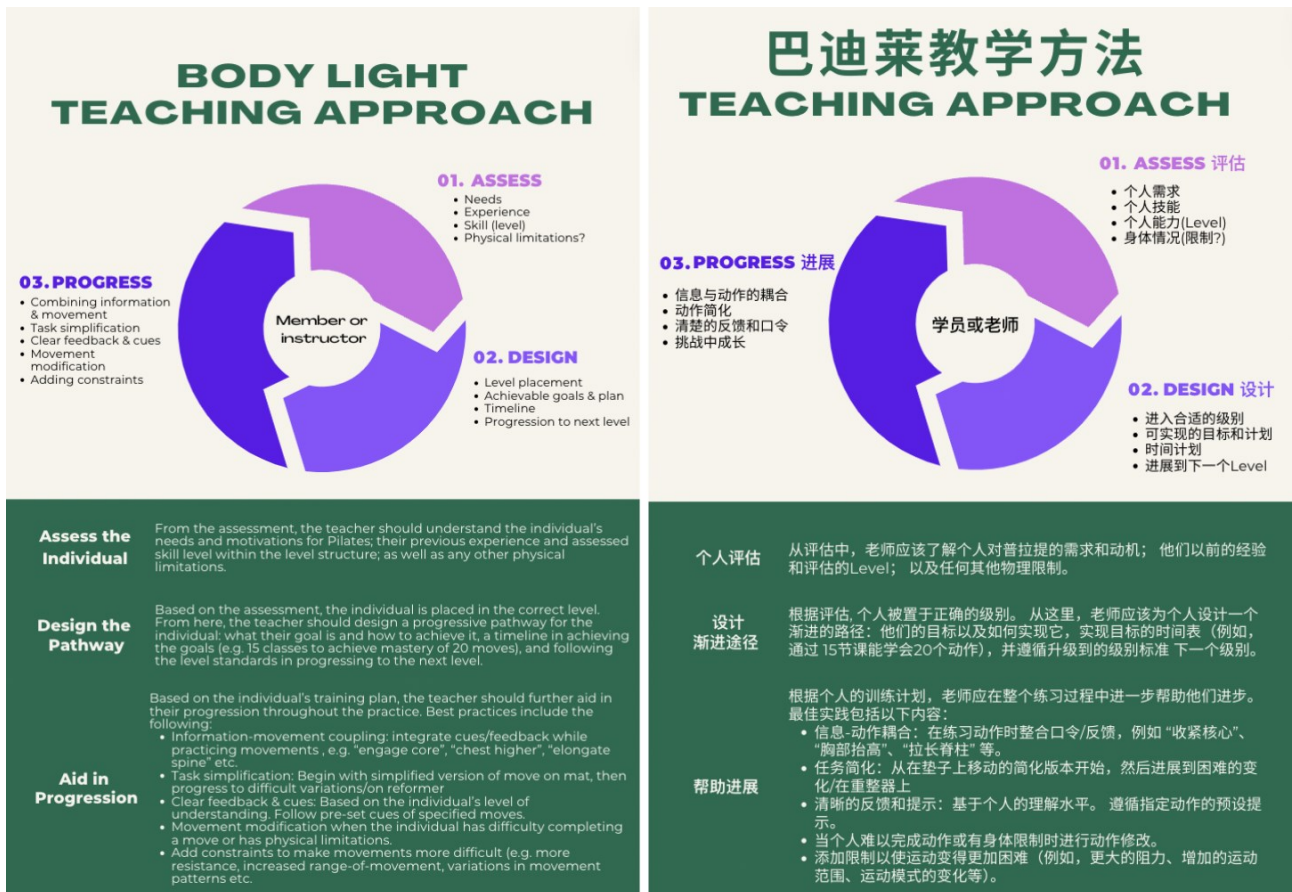


Figure 33. Body Light Level Guide: Teaching Approach (English version left, Chinese version right).

The first phase of the Teaching Approach, “Assess” focused on the assessment of the individual, taking into consideration the findings and results of the initial assessment within this guide, as well as level assessments. This highlighted the personalization of an individual's assessment in terms of needs, experience, skills and potential limitations, before placing them in the correct level. The next phase, “Design” was a personalized progressive pathway for the individual based on the results of the assessment. This highlighted setting achievable goals and timelines, to ensure that even extrinsically motivated individuals would be able to see and understand progress, as this challenge had been emphasized in both the focus group and pilot test.

The last phase of the Teaching Approach, “Progress”, is where the teacher utilizes specific teaching methods to aid the learner in skills progression. Here, I implemented elements of practice design from nonlinear pedagogy, as was seen highly efficient from the pilot test, such as utilizing constraints, task simplification and information-movement coupling. These were observed to help the learner in progressing in their skills and mastering Pilates moves. As the approach is cyclical in nature, the progression to a new level begins again at the beginning phase, “Assess” to accommodate the progressive pathway of the learner.

The Level Guide and Level Structure act as an internal means of guiding progression of individuals, where flexibility in progressive pathways is ensured based on the individual’s assessment. It has been designed as a supporting structure in creating further detailed curriculum, assessment classes, communication guides and instructor certifications. It is hoped that the created Level Guide helps to increase the number of qualified instructors, while improving the service quality for members.

## 6 Discussion

The development project resulted in a finalized prototype of the Level Guide, including the Level Structure, commissioned by Body Light. The initial discussions of development needs with the commissioning company began already in August 2023, and the finalized constructs of the development project were created in May 2024, where the entirety of the development project spanned over 10 months. Although requiring plenty of individual work, the development project took on a highly interactive approach. Communication between myself (the researcher) and the commissioning company was maintained throughout the development project, which had been highlighted as an important aspect of constructive research (Ojasalo et al. 2022, 68).

In this chapter, I have summarized the key findings of this development project. I further reflect on the overall trustworthiness of the project and my personal learning reflections. Based on the findings, I have finally summarized further research areas, and my recommendations for Body Light's next steps.

### 6.1 Key findings

The purpose of this development project was to create a Level Guide for the commissioning company, Body Light, aiming to facilitate skill progression of members and development of qualified teachers. Not only did the research result in a concrete construct in the form of a Level Guide and Level Structure, but it also added new findings and knowledge within the Pilates industry in China. The key findings in this chapter reflect the research questions of this development project:

Q1: How to enhance skill development in Pilates training and encourage members to become instructors?

Q2: How could levels in Pilates be designed to bridge the gap from member to instructor?

Q3: How could levels be designed to encourage flexibility in progression based on members' needs and experience level?

Q4: How could progressive pathways in Pilates contribute to customer satisfaction and loyalty?

The findings from this development project highlight the importance of skill progression, aligning with the main research question Q1. Findings from both theory and the qualitative research point towards an emphasis on a flexible, yet standardized, means of progression in Pilates. Nonlinear pedagogy supports the nonlinear nature of humans, where learning experiences are created to support the individual (Renshaw et al. 2010, 128). When utilizing design practice from nonlinear pedagogy, such as task simplification and information-movement coupling, I observed individuals



mastering Pilates moves only within one assessment class. When implemented long-term, the progression could be highly effective in reaching skill mastery and ensuring progression of members' skills. However, research findings highlighted the importance of implementing a more standardized approach to the flexible means of learning, to eliminate unnecessary complexity and confusion, which is where the practicality of levels lies.

Various benefits of having levels in Pilates were found, which supported individual progression and transition to instructor. By having levels, clarity of progression and progressive pathways could be implemented, ensuring a standardized approach in flexible progression. Furthermore, insights from the focus group had highlighted differing motivational factors based on experience level, to which the Level Structure was built to support. The pilot test on assessment classes further highlighted the importance of having standardized approaches coupled with personalized adaptation within the teaching approach and designed pathway of each individual.

I further observed levels to have implications on accommodating differing motivations of members with differing experience levels. Existing research has observed that novice customers are motivated by tangibles, leading to customer satisfaction, and ultimately loyalty. In contrast, experienced customers are driven by motivations of social benefits in service quality, directly impacting formation of loyalty. (Dagger & Sweeney 2007, 32-34). The findings from the focus group and pilot test validated the research by Dagger and Sweeney (2007, 32-34) on experience level's impact on loyalty formation. Furthermore, the principles of Self-Determination Theory (Ryan & Deci 2017, 1-3) were observed to correlate with the findings, wherein members' experience levels impacted their initial and continued motivation, therefore impacting their loyalty.

Novice members exhibited extrinsic motivations, which led to dissatisfaction if not properly supported. Conversely, experienced members favored intrinsic motivations, where long-term loyalty was formed more easily. This suggests that an individual's experience level impacts their motivation as well as their formation to loyalty. As this had been previously overlooked in level systems, I wanted to ensure the consideration and implementation of an individual's experience, and possible motivation, into the design of the Level Guide. This was actualized in two ways: first, by adding an initial assessment class for any newcomer to the brand. This would ensure proper personalization of the individual and creating a suitable progressive pathway based on the individual's needs. Second, I modified the Level Structure to include complete beginners, where 3-5 introductory classes would ensure both understanding and visible progress of each new beginner, taking into account their extrinsic motivations.

Through benchmarking relevant level systems, I was able to identify the best practices of structural design, addressing progression of the individual and integrating the transition from member to

instructor. Implementing a nonlinear structural approach, influenced by the Certification Levels of Canadian Ski Instructor Association, allowed for parallel progression of both members and instructors. This promoted ease of transition from member to instructor, with a significantly lowered threshold. Members were no longer constrained to linear progress from Level 1 to 4 before advancing to Instructor certifications; they could now pursue both member and instructor levels simultaneously, beginning from Level 2. Through this member-to-instructor integration, I was able to further reduce the gap between the two progressive pathways, and ensure progression from member to instructor stayed within the same system and studio. This further enabled members to align their existing Pilates practice experience with relevant teaching skills, further affirming loyalty to a single studio. Currently existing Pilates level systems lack a unified Level Structure accommodating both member and instructor progression, which contributed to the novelty of this created construct.

Lastly, I observed the importance of teaching approach in both member and instructor levels in my research. Findings from the benchmarking, focus group and pilot test all contributed to the implementation of best practices in teaching, leading to the creation of the Teaching Approach in the Level Guide. A cyclical approach with a focus on the individual, the Teaching Approach begins with assessment, continues to designing a suitable pathway for the learner and finally implements nonlinear pedagogy's best design practices in aiding in progression. The Teaching Approach emphasized the integration of standardization and personalization, as had been highlighted in the Scale for Fitness-Club Services components, and therefore further validated the usability of the scale, even in Pilates. The Teaching Approach further supported the progression of individuals within the Level Structure.

The finalized Level Guide prototype acts as a structural foundation in level implementation within Pilates practice in Body Light. It successfully answered the research questions on enhancing skill development and transition to instructor through a novelty construct. Furthermore, the Level Guide accomplished the integration of standardization and personalization, where skill progression of members is clear and standardized, while having the ability to adapt to the unique needs of an individual. Through the implementation of assessment classes, beginners intros and Teaching Approach, I have taken into consideration the impact on customer satisfaction and loyalty. However, this will require further implementation to perceive its success in customer satisfaction and loyalty. Chapter 6.4 further highlights the future usability of the Level Guide in Body Light's operations. Although commissioned by Body Light, the Level Guide and Level Structure have both been designed to be applicable to the Pilates industry within the Chinese market. Ideally, finalized constructs could be implemented across any Pilates studios in China wanting to standardize progressive practice and integrate members and instructors together.

## 6.2 Trustworthiness of development project

Research highlights trustworthiness of qualitative research to consist of five major areas: credibility, transferability, dependability, confirmability and authenticity (Ahmed 2024; 2-3; Cope 2014, 89-90). Therefore, to assess the trustworthiness of this development project, I will reflect on the aforementioned five areas.

**Credibility** looks at how accurately the findings of the research reflect the experiences of the participants (Cope 2014, 89). My close association to the commissioning company revealed a high potential for **personal bias** in conducting the research. I noticed myself at times moving into the mindset of “decision-based evidence making”, where I would look for evidence based on the decisions that I had wanted to make (Tingling & Brydon 26 June 2010). I tried actively pursuing objectivity of viewing and analyzing data in hopes of ensuring credibility of the research (Ahmed 2024, 2), however, as I was the only researcher, the extent to which objectivity was observed is unclear.

**Triangulation** was crucial in enhancing credibility of the development project, where differing perspectives from diverse data collection methods further reduced the potential bias of using only one method (Ahmed 2024, 2; Ojasalo et al. 2022, 109). My personal bias was highlighted in the pilot test, where many of the outcomes of the participants’ diary entries did not align with my personal observations. This highlighted the need for caution in using only one data collection method, even in the same setting. Moreover, the credibility of the research may have been compromised by the lack of **prolonged engagement** within the Pilates environment and with research participants (Ahmed 2024, 2). Although I was familiar with the industry, employees and future plans of the company, increased engagement with the target users over an extended timeline could have yielded more valuable insights. This limitation should be further evaluated in the next steps of the company and future research.

**Transferability** refers to the degree of applying the findings to alternate settings or groups, and brings value to non-participatory individuals (Cope 2014, 89). While the Level Guide adds value to internal members of Body Light and the Pilates industry, the narrow scope and familiarity of participants in the research may have challenged the transferability. Contextual information, such as choosing participants and research methods, have been described in this development project in the aims of addressing this posed challenge (Ahmed 2022, 2).

**Dependability** implies the consistency of the research findings over time and under similar circumstances. Although I documented my findings in detail and relied on guidance from my thesis advisor throughout this development project, it is difficult to predict whether the findings will be dependable in future contexts of the changing Pilates industry. (Ahmed 2024, 2; Cope 2014, 89).

**Confirmability** is achieved when the findings of data collected can accurately represent participants' experiences, without personal bias of the researcher (Cope 2014, 89). Continued discussions with relevant Body Light members and co-creation with the target users strengthened the confirmability of the development project. However, the absence of documentation and reflection on personal thoughts and bias highlights the limitation in confirmability, which should have been facilitated (Ahmed 2024, 2). Lastly, **authenticity** is the ability to highlight the true feelings and emotions of participants by the researcher (Cope 2014, 89). Although I ensured to add direct quotes from participants to enhance their authenticity of feelings, it is inherently challenging to portray true feelings within written text.

In conclusion, while areas of trustworthiness were exhibited, there were similarly areas challenging the trustworthiness of this development project, which highlights the need for being critical in the assessment of trustworthiness. Areas such as prolonged engagement, dependability and confirmability posed challenges in the trustworthiness of the research. These should be further strengthened to ensure a higher rate of credibility and trustworthiness. This development project has been a learning process for me as a novice researcher, and I will ensure to further reflect on the areas of trustworthiness in any further research conducted.

### 6.3 Learning reflections

Throughout the development project, my primary focus was on the research findings and creating the Level Guide for the commissioning company. However, this development project also gave insight on my personal growth and discovery. Ojasalo et al. (2022, 7) highlight that developmental research relies on skills of applying, adapting and creating something new, which I reflected to align with my personal learning during this development project, as well as the importance of keeping an open mind.

I have always emphasized that a well-thought-out plan is a crucial component of doing anything, however, in research, I observed that the reality does not always align with plans. Therefore, being able to adapt and change plans to align with the research objectives is equally important. However, my personal character clashed with the foundation of applicability, as I needed to know what will happen and plan every last detail. I worried that changes in my plans would invalidate my research, therefore making it worthless. However, discussions with my thesis advisor, Sirpa Lassila, changed my perception on adaptability in developmental research. Not only is research ever-changing, where adaptability is necessary, but the ability to adapt to unforeseen changes is actually a strength, not a weakness.

I observed efficient adaptability to gain relevant knowledge even when circumstances had changed in a few instances during the development project. During the implementation of the focus group, I had to adapt to a few changes. First, one of the initially confirmed participants cancelled last-minute. With such a short notice in participant change, I could no longer find a replacement, and had to assess whether to continue with the focus group or not. I decided to continue with only five participants, and it ended up resulting highly valuable data from discussion. I further noticed participants of the focus group starting to tire after about an hour of discussion, which is why I made the call to not dig deeper into the skill progression questions, as I believed it would not result high-quality discussions anymore. Therefore, I decided to implement more of this topic into the pilot test for further data collection.

In the pilot test, I had to adapt to changes in the implementation – the originally planned Teacher Training would be too timely, which is why I decided with the Body Light members that assessment classes would be implemented instead. Furthermore, I adapted to observe the assessment class of two individuals at the same time, although I had originally planned on only observing 1v1 assessment classes. This further resulted in the validation that assessment classes must be conducted 1v1, as even 1v2 proved highly ineffective.

Furthermore, I observed that although I can gain a plethora of data, resulting in various themes, not all of them were relevant to the development project. This is where I gradually learned to utilize my skills and understanding in applying the research findings into creating the Level Guide: what was relevant, and what was not. At times I struggled to find a link between analyzed data, the objective of the research and the theoretical framework. However, by viewing the research questions, I was able to question the relevancy of information – is this relevant to my project?

Lastly, I reflected on the importance of keeping an open mind throughout the development project. Although I needed to ensure relevancy and focus on the objective of the development project, I also needed to adapt to new findings, i.e. keep an open mind. For example, although it was not utilized in the final created Level Guide, I made observations in the importance of environment (tangibles) to beginners' motivations and continued practice. This was not only observed in the focus group, but through keeping an open mind, I was able to connect the link between motivational theory, findings of the focus group and results of the pilot test, all confirming that environmental factors were a crucial component to beginner members. This was further communicated to the commissioning company as highly insightful knowledge, and it would help them in the design of the studios, which was also taking place parallel to this development project.

Reflecting on the whole development project process, I am overall satisfied with the learning outcomes and findings. Not only did I gain skills in learning through successful implementation, I also

faced challenges during the development project that I had to adapt to. However, had I the chance to re-do this project, I would ensure the pilot test was implemented differently. As the whole development project had been focused around the creation of qualified instructors through the level implementation, I had planned to test its applicability and validity through Teacher Training. This would have consisted of potential instructors joining the Level 2 Teacher Training class, where the best practices of Teaching Approach, level components and Level Structure would have been implemented. As the object was to observe the participants spanning over a few days, I wanted to see how skills progressed and perceptions on mastery changed during this time. Unfortunately, due to time constraints, the implementation of Teacher Training would have required a few months' time, which is why it could not be implemented. As was seen above, I then adapted this to observe assessment classes, which still provided relevant data, although perhaps not as valuable.

#### **6.4 Next steps and recommendations**

The resulting Level Guide was successful in meeting the objectives of helping to ensure skill progression in members, and integrating a pathway from member to instructor with relative ease. As I had established the structural foundations through the Level Guide and Level Structure, the next steps of Body Light should involve expanding upon the different components of the Level Guide, leveraging the advantageous position of being in the early phase of growth.

During the formation of this Level Guide, I worked closely with the internal members of Body Light, where internal meetings highlighted responsibilities of other members sprouting from this development project. Specific to this Level Guide, Esther Tang, the Head of Pilates, will be responsible for creating specific curriculum of each level within the Level Structure and assessment requirements of passing each level. She should further ensure the best practices of Level Components and Teaching Approach are implemented into member classes (1v1 and group classes), as well as Teacher Training classes.

Although only briefly noted in the Level Guide, the use of a variety of materials in the teaching approach was highlighted in the professional component benchmarking. This should be further utilized in the development of e.g. study materials of Teacher levels. Discussions had briefly highlighted ideas such as creating video movement libraries, so individuals could access the correct movement form at any time. Although a large undertaking, it would be the next sensible step upon creating the specified movements and curricula of levels. Body Light should also consider creating learning manuals for the levels within the Teaching Tracks, to ensure that individuals can implement self-study during the Teacher levels. will further enhance the learning process of potential instructors, as well as enable further standardization of level curricula and requirements.

The findings from this development project further highlighted the importance of communication and cues. Not only were beginners observed to have difficulty understanding cues, but there was a concern over the credibility of a teacher being able to utilize appropriate cues and communication with little experience. Therefore, Body Light should consider how to implement clear communication and easy-to-understand cues within their teaching approach. The focus group and pilot test had both proved the use of metaphors as one viable option in communicating moves in an easy-to-understand manner. One option for facilitation could be to create specified teacher cues for movements and how to communicate teaching of movements and focal points to members (novice and experienced).

## **6.5 Further research**

As the objective of this development project was to develop the Level Guide, further research should study its implementation into day-to-day operations. Over time, the impact on skill progression, member satisfaction and loyalty formation can be studied. Furthermore, the impact of the Level Guide on encouraging members to become instructors should be further examined, researching the specific areas that lead to transition, and whether this approach produces quality teacher. Based on the findings, the Level Guide could be further modified to be efficient in achieving these goals.

During the execution of research, I had noted that the research done in this development project did not account for complete beginners with no background in any form of fitness. Therefore, there was a lack of insights and representation of complete beginners within the findings of this development project. This is why further research could specifically study the motivations and skill progression of beginners with no pre-existing background or experience in any form of fitness or exercise, and the implementation of the existing Level Guide's impact on beginners.

Although the Level Guide created from this development project was specifically commissioned by Body Light, the overall structure and general nature of the Level Guide and Level Structure was designed to be applicable to the Pilates industry in China, aligning with the core of constructive research. Therefore, further research on its applicability within other studios in the Pilates industry would be relevant and interesting to see how well it could be implemented, and whether the benefits arising from it would be similar. Further research could also look into implementation of other industries, such as yoga, boxing etc. and the applicability of implementation globally.

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# Appendices

## Appendix 1. Focus group interview presentation and questions.

Mari Yang | BodyLight  
30 March 2024, 15:00-16:00

# Pilates FOCUS GROUP

1

## RESEARCH OBJECTIVES 研究目的

- PROBLEM: MEMBER AND INSTRUCTOR ARE SEPARATE "ENTITIES"  
怎么结合 练普拉提+教普拉提
- PROBLEM: NO STANDARDIZED LEVELS OR LEVEL ASSESSMENTS  
怎么设计有效的 普拉提等级框架
- PROBLEM: NO STANDARDIZATION OF INSTRUCTORS  
怎么鼓励更多学员变 成普拉提老师

2

### ICE BREAKER 破冰

Let's Start... 我们开始吧....

Write your motivation to begin Pilates: WHY did you start? (1-4 reasons).  
写下你最初开始练普拉提的动机: 为什么决定去上课? (1-4原因).

We will discuss together when finished. 写好了我们一起来讨论

(10min)

3

### Continued...

What is your current motivation to CONTINUE Pilates, has it changed?  
If you decided to stop, WHY?

你目前继续练普拉提的动机是什么, 是否有改变?  
如果你决定停止, 为什么?

(10min)

4

### What makes PILATES ENOVABLE?

普拉提哪些方面让你更享受?

- Class/Movement Variety 课程/动作丰富
- Sense of Achievement 成就感
- Challenge 挑战
- Social & Group Dynamics 社交益处
- Other 其他
- Personalization 个性化
- Equipment 设备
- Environment 环境
- Teacher 教师

5

### What is "progress" in Pilates to you?

你认为普拉提阶段成就是什么? 有哪些?

- CONTROLLER BREATHING
- IMPROVED BALANCE
- IMPROVED FLEXIBILITY
- PHYSICAL CHANGE
- STRENGTH
- IMPROVED MOBILITY
- LEARNING A MOVEMENT
- CONTROL OF MOVEMENTS
- ADVANCED MOVEMENTS

6



How important is progression in Pilates to you? Why?  
 你对自己练普拉提的“进阶”满不满意？为什么？

1 不满意      3 一般      5 非常满意

7

**Continued...**

When learning a new (or difficult) move, what aspects help you to master it?  
 当学习新的或者很难的动作时，哪些方面可以帮助你学会它？

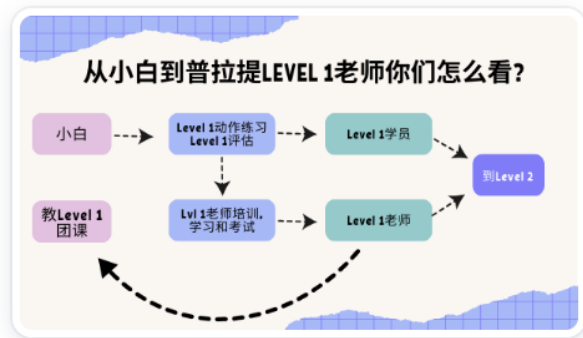
(10min)

8

For example 比如:

- Teacher demonstration 老师示范
- Verbal cues from teacher 老师给的反馈和鼓励
- Practising the movement step-by-step 一步一步学动作
- Self-practice 自己练
- Focus on breathing techniques/core activation 注意到呼吸或核心收紧
- Watching videos 看视频
- Modifications 动作的修改
- Utilization of equipment 利用设备或者重量来帮助

9



10

**Continued...**

Would this type of level system help you to...

- progress in your skills?
- understand what level you are?
- encourage you to become an instructor?

这种等级系统会不会...

- 让你提高你的技能?
- 帮助你更了解自己是什么水平?
- 鼓励你想要当老师?

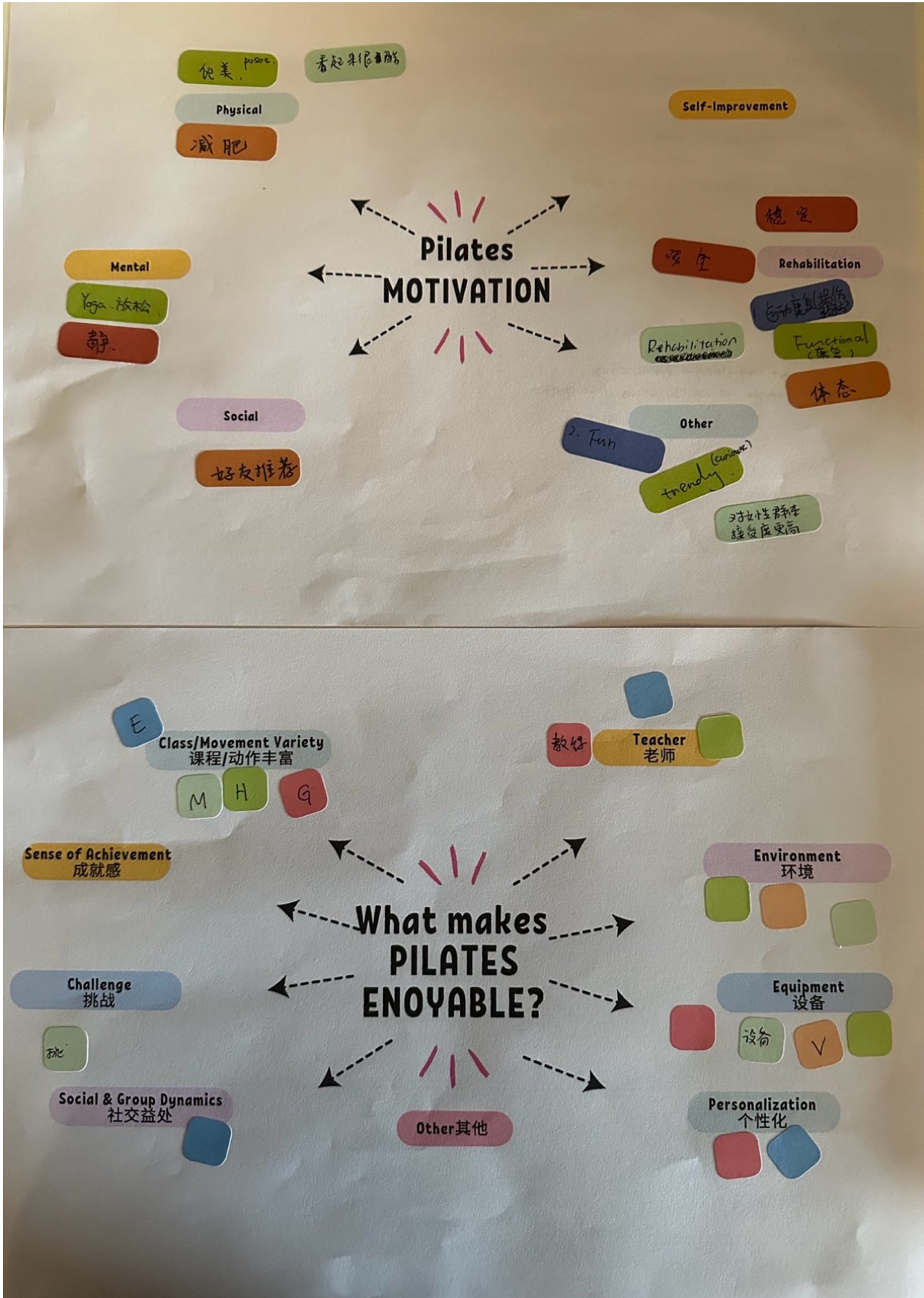
Other feedback or insights?  
 其他反馈或者意见?

11

**THANK YOU!**

12

Appendix 2. Focus group worksheets.



## Appendix 3. Observation Questions & Checklist.

# Observation Checklist

Teacher: Esther Tang

Location: Pilates studio in Chengdu (HaiChangLu)

Participant:

Date:

Time:

## Teaching Approach:

**Personalization:** Does the teacher address individual differences effectively?

**Adaptability:** How often does the teacher adapt the class based on individual requirements?

**Feedback:** Is ongoing feedback evident throughout the class?

### Communication and Cues:

Are communication and movement cues clear and easily understood?

(Where the participant is a beginner):

**Introduction for Beginners:** How well does the teacher facilitate understanding of Pilates for complete beginners?

## Participant Engagement and Response:

**Engagement:** Rate the level of participant engagement (active participation, asking questions, focused attention) throughout the class (e.g., high, moderate, low).

**Response to Cues:** Do participants demonstrate understanding of cues through their actions (following instructions)?

**Response to Feedback:** How do the participants respond to teacher's feedback (behavioral or changes in action)?

## Introduction of Level Structure:

Is the assessment of the participant explained clearly by the teacher (incl. the level structure and progression)?

How effectively does the teacher communicate the progression of levels to participants?

## Appendix 4. Pre-filled Diary Questions (Probe method)

# Pilates Participant Diary

Participant:  
Previous Pilates experience:  
Class booked:

### Entry 1: One day before class

Date:  
Time:

1. How do you feel today, knowing you have Pilates class tomorrow?
2. Based on your previous Pilates experience, what are your expectations of tomorrow's class?

### Entry 2: At the studio, just before starting class

Date:  
Time:

1. When you came into the studio, how did you feel? What did you focus your attention on?
2. What are your expectations of the class about to start?

### Entry 3: During Class

Date:  
Time:

1. What feelings and thoughts do you have during class?
2. How is the atmosphere during the class? (Teacher, environment, communication etc)

### Entry 4: Just after class

Date:  
Time:

1. How do you feel after finishing the class?
2. Did the instructor help to demonstrate or communicate any moves you found difficult to understand?
3. How would you rate this class and why (1-10)?

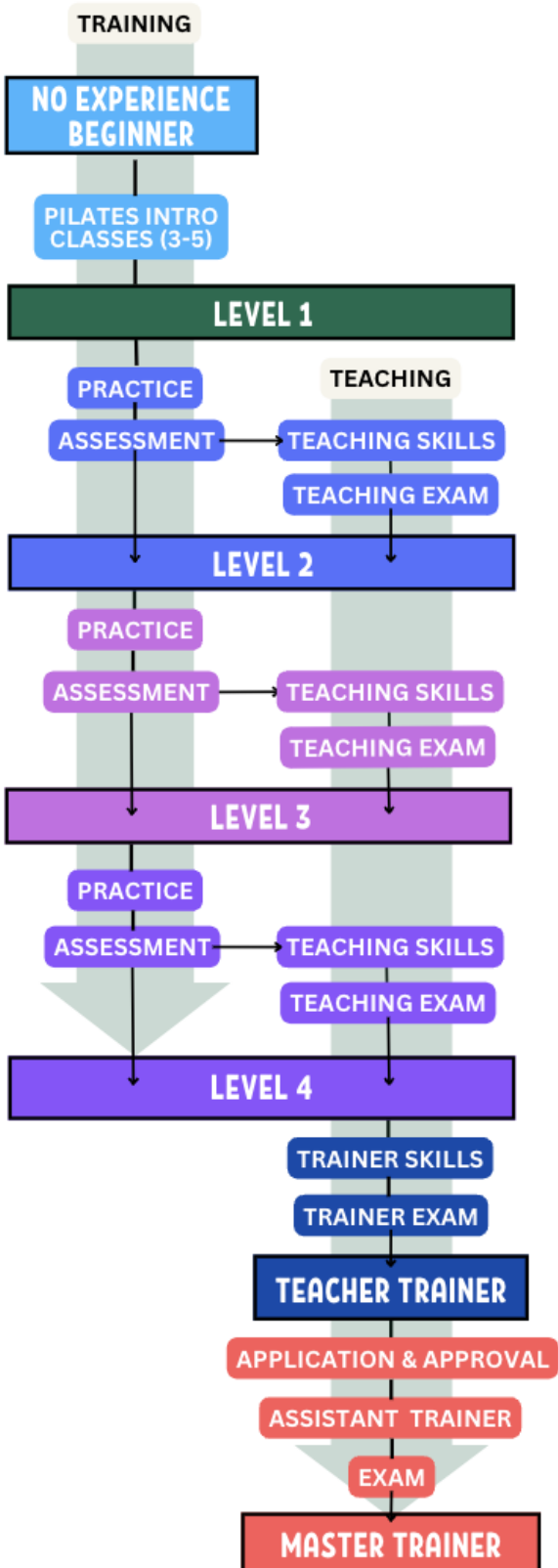
### Entry 5: One day after class

Date:  
Time:

1. One day after having the class, what are your feelings of the class? Have they changed?
2. Is there anything from class that had an impression on you? What do you remember the best?
3. Did you understand your skill & level assessment? Are you satisfied with it?

Appendix 5. Body Light Level Structure.

**SKILL ASSESSMENT: ENTRY TO LEVELS**



Appendix 6. Body Light Level Guide.



# BODY LIGHT PILATES LEVEL GUIDE

## 巴迪莱普拉提 级别白皮书

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BODY LIGHT

# INTRO- DUCTION 白皮书介绍

## Body Light Pilates Level Guide: 巴迪莱普拉提级别:

The purpose of this guide is to explain the level structure in Pilates, best practices for level components in both teaching and training, teaching approach, and a progressive pathway for learning.

This level guide is meant for internal use within Body Light, ensuring progression of both members and instructors, and progression from member to instructor.

本白皮书的目的是解释普拉提的级别结构、教学和培训中各级别组成部分的最佳实践、教学方法以及渐进式学习路径。

本级别白皮书供巴迪莱内部使用，确保会员和教练的进步，以及从学员到老师的进步。



BODY LIGHT

# IMPORTANCE OF LEVELS IN PILATES

## 普拉提级别的重要性

Motivations of individuals vary, but ensuring visible progress and understanding of that progress is essential. The level structure ensures this through many factors, as seen below.

每个人的动机各不相同，但确保明显的进步和对进步的理解至关重要。层级结构通过许多因素确保这一点，如下所示。

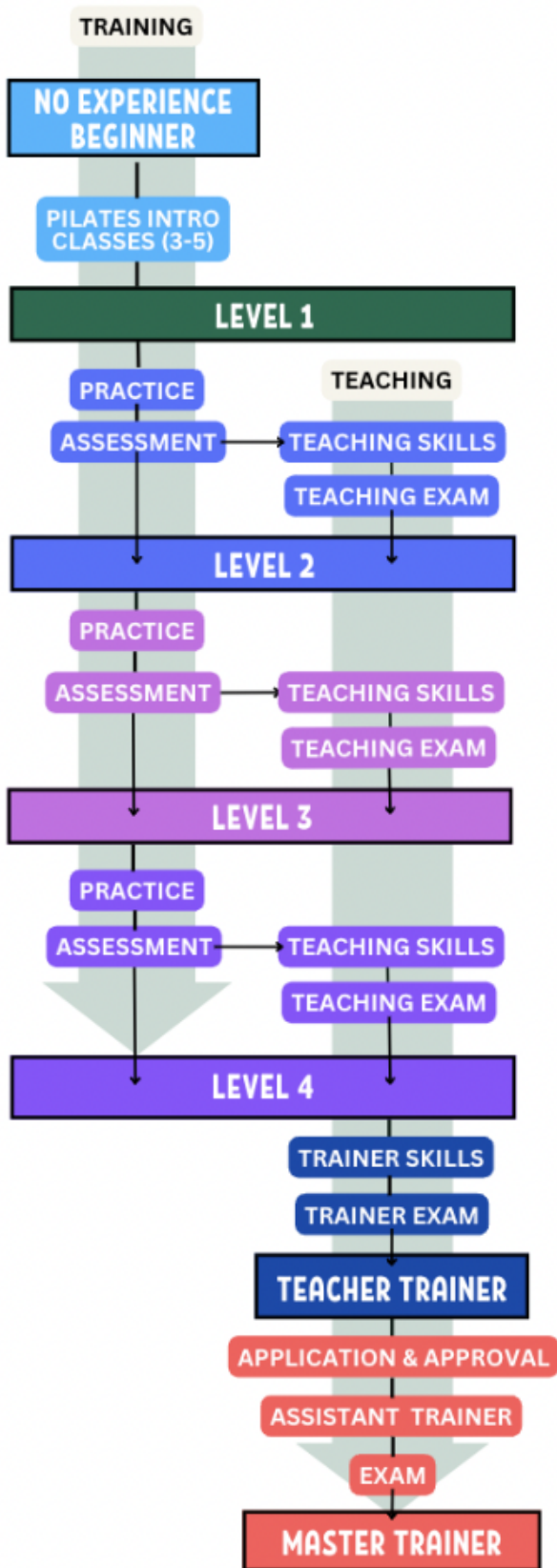


### Why have levels in Pilates? 普拉提为什么需要级别？

- **Clear Progression:** Guides members through structured advancement.
- **Training Pathway:** Provides a clear route for instructor development.
- **Member-to-Instructor:** Facilitates a standardized progression to instructor with a lower threshold.
- **Motivation:** Sets achievable goals and tracks progress.
- **Tailored Instruction:** Allows for customized teaching based on skill levels.
- **Consistency & Standardization:** Ensures uniform assessment and standards.
- **清晰的进展:** 引导学员通过结构化的晋升过程。
- **培训路径:** 为老师发展提供清晰的路线。
- **学员转老师:** 为成为老师提供了一个较低门槛的标准化晋级过程。
- **动机:** 设定可实现的目标并跟踪进展。
- **定制指导:** 根据技能水平提供定制化教学。
- **一致性与标准化:** 确保统一的评估和标准。

# BODY LIGHT LEVEL STRUCTURE 巴迪莱级别框架

## SKILL ASSESSMENT: ENTRY TO LEVELS



# TRAINING & TEACHING

## “TRACKS”

### 训练和教学“轨迹”

The structure is divided into 2 tracks: Training and Teaching.  
Independent progression in training is encouraged. To progress in the teaching track, the training track & assessment of the corresponding level is a pre-requisite.

级别框架分为2个轨迹：学员和老师  
鼓励在培训中独立进步. 要在老师轨迹上取得进步，学员轨迹和评估是先决条件

#### Training Track 学员轨迹

- Includes "Intro to Pilates" and 4 Training Levels based on skills
- Each level includes: Pilates movement practice & simple assessment
- The assessment is informal, and based on the individual's ability of to do specified moves in the level and use equipment safely
- “普拉提入门课”和总攻 4 个普拉提训练级别
- 每个级别包括：普拉提动作练习和动作评估
- 评估是非正式的，基于个人能做制定的动作和安全使用设备的能力

#### Teaching Track 老师轨迹

- Includes 3 Teaching Levels (Levels 2-4), and 2 Teacher Trainer Levels (Instructor Trainer & Master Trainer)
- In addition to the training track requirements, individuals must complete: teaching skills and teaching exam.
- Each Teaching Level consists of a theoretical exam and a teaching assessment
- Passing a level results in a Teacher Level Certification
- 包括 3 个教学级别 (Level 2-4) 和2个培训师级别 (培训老师和高级培训老师)
- 除了学员轨迹要求外，老师轨迹还必须完成：教学技能评估和教学考试。每个级别含理论考试和教课评估
- 通过级别即可获得老师级别认证

# PROGRESSIVE PATHWAYS

## 渐进式发展路径

### STEP 1: ASSESSMENT

第一步: 水平评估

### STEP 2: LEVEL PLACEMENT

第二步: 进入合适的级别

### NO EXPERIENCE BEGINNER

Must complete 3-5 Pilates intro classes

Member: Can attend  
Level 1 classes

### LEVEL 1

Member:  
Can attend  
Levels 1- 2 classes

### LEVEL 2

Teacher:  
Teach Level 1 training  
classes (group & personal)

Member:  
Can attend  
Levels 1-3 classes

### LEVEL 3

Teacher:  
Teach Levels 1 & 2 training  
classes (group & personal)

Member:  
Can attend all classes  
(Levels 1-4)

### LEVEL 4

Teacher:  
Can teach all training levels  
(group & personal) +  
assessment classes

### TEACHER TRAINER

Can teach and assess all teaching levels

### MASTER TRAINER

Can teach all levels, responsible for class  
programming and design

# INITIAL ASSESSMENT

## 初步水平评估

**What is it?** A 1v1 class assessing the individual's skill level based on movement ability, response and discussion.

**For who?** For anyone new to Body Light, regardless of experience, both members and instructors.

**Purpose?** To assess skill level based on a standardized structure, and ensure correct placement into further progression. To further assess the individual's needs and create a Pilates plan to meet those needs.

**是什么?** 一堂课根据运动能力和沟通能力评估学生的技能水平。

**给谁?** 对于刚接触巴迪莱的任何人，无论经验如何，学员和老师都要做

**目的?** 根据标准化结构评估技能水平，并确保正确地进入进一步的发展。

### Assessment implementation requirements: 评估课应满足以下要求：

- Class expectations: explain the flow of the class, what is the purpose and what are the expected outcomes
  - Personalization & adaptability: consider the needs (including difficulty level), experience and physical capability of the individual. Adapt the class and moves based on their requirements.
  - Communication: Easy cues, repetitive feedback (correcting and positive), using metaphors and interactive communication (questions & preferences)
  - Assessment results: level in Body Light level structure, plan for progression (either based on levels, skill or personal goals)
- **课程期望：**解释班级的流程、目的是什么以及预期结果是什么
  - **个性化和适应性：**考虑个人需求（包括课程难度）、经验和身体情况。根据个人要求调整课程难度和动作。
  - **沟通：**简单的提示、重复的反馈（纠正和积极）、使用隐喻和互动沟通（多问意见和偏好）
  - **评估结果：**适合放在哪个级别、进展计划（基于级别、技能或个人目标）

# 学员级别的组成部分

## TRAINING LEVEL COMPONENTS



### 01. PRACTICE 动作练习

- Specified moves and practice hours of each level (1-4)
- Technical training: Begin with movement simplification (step-by-step), first on the mat, then move to reformer.
- Practical training: Ongoing feedback through practice for progression.
- Knowledge of equipment use and safety

- 每个级别（1-4）的指定动作和练习时间(小时)
- 技术练习：从动作简化开始（逐步），先在垫子上，转向器械
- 实践练习：通过练习不断反馈以促进进步。
- 器械使用及安全知识

### 02. ASSESSMENT 学员评估

- Assessment includes: ability to do specified movements & use equipment
- Completion of assessment results in moving to the next training level, or the equivalent teacher training level
- 评估：进行特定动作和使用设备的能力
- 完成评估后可进入下一个培训级别或同等的教师培训级别

# 教师的组成部分 TEACHING LEVEL COMPONENTS



## 01. TEACHING SKILLS 教学技能

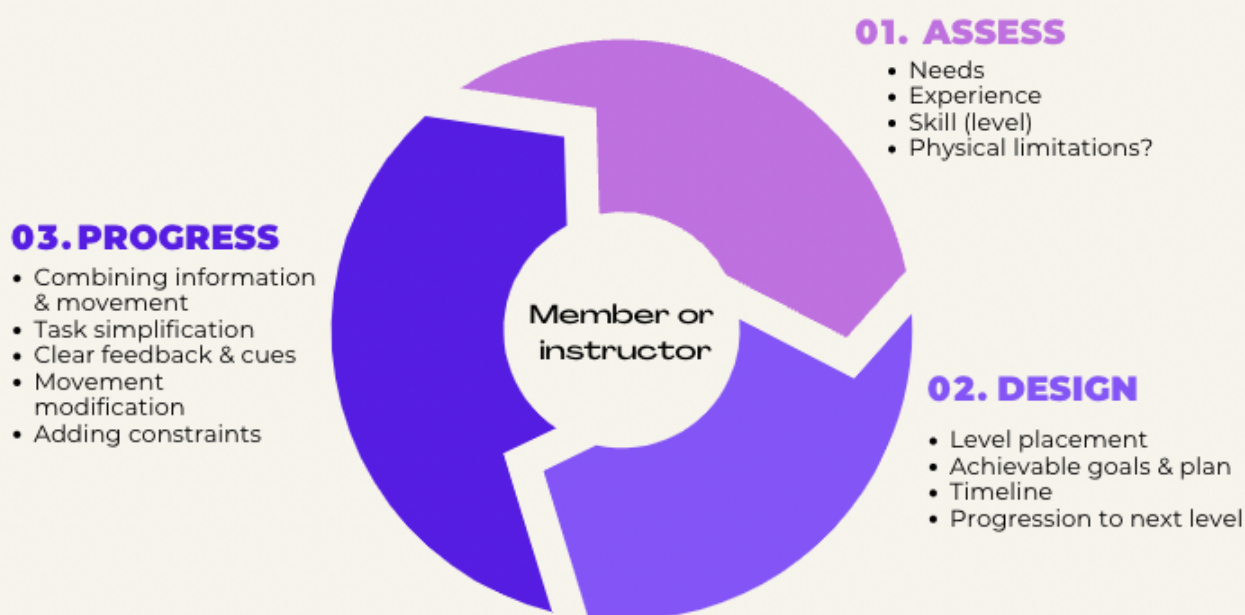
- Follow pre-requisites of Training levels (practice and assessment)
- Communication and cues for teaching: simple, using metaphors.
- Movement modification
- Equipment use and safety
- Theory (incl. anatomy)
- Practical training (teaching & self-practice of moves)

- 完成学员级别的先决条件（练习和评估）
- 教学的沟通和口令：简单，用比喻
- 动作调整
- 器械使用及安全
- 理论（包括解剖学）
- 实践训练（教学+自己练习动作）

## 02. TEACHING EXAM 教学考试

- Theoretical written exam (online)
  - Teaching demo assessment (online video or in-person)
  - Results in teaching certification
- 
- 理论考试（线上）
  - 教学课程评估（在线视频或现场）
  - 获得教学认证

# BODY LIGHT TEACHING APPROACH



## Assess the Individual

From the assessment, the teacher should understand the individual's needs and motivations for Pilates; their previous experience and assessed skill level within the level structure; as well as any other physical limitations.

## Design the Pathway

Based on the assessment, the individual is placed in the correct level. From here, the teacher should design a progressive pathway for the individual: what their goal is and how to achieve it, a timeline in achieving the goals (e.g. 15 classes to achieve mastery of 20 moves), and following the level standards in progressing to the next level.

## Aid in Progression

Based on the individual's training plan, the teacher should further aid in their progression throughout the practice. Best practices include the following:

- Information-movement coupling: integrate cues/feedback while practicing movements, e.g. "engage core", "chest higher", "elongate spine" etc.
- Task simplification: Begin with simplified version of move on mat, then progress to difficult variations/on reformer
- Clear feedback & cues: Based on the individual's level of understanding. Follow pre-set cues of specified moves.
- Movement modification when the individual has difficulty completing a move or has physical limitations.
- Add constraints to make movements more difficult (e.g. more resistance, increased range-of-movement, variations in movement patterns etc).