

5.0 METHODS

5.1 PARTICIPANTS

This study used stratified sampling and targeted subgroups of remote and in-person providers and practitioners, both male and female, based on their experience level, for each region. This approach aimed to reach a broad network of individuals with diverse demographics, yoga practices, and experiences with different yoga delivery modes. The total sample size was distributed across all groups to ensure each subgroup is adequately represented.

5.1.1 SAMPLE SIZE

We distributed the total sample size across all groups to ensure adequate representation of each group. The following parameters were assumed.

- Confidence Level (Z): 95%, corresponding to a Z-value of 1.96.
- Power (1-β): 80%, corresponding to a Z-value of 0.84.
- Effect Size (Δ): The minimum detectable difference; for this example, we'll consider two scenarios with Δ = 5 and Δ = 3.
- Standard Deviation (σ): Assumed to be 10 units

For our study involving two countries, each with three binary factors—Sex (Male/Female), Role (Provider/Receiver), and Mode (Online/Remote)—we can utilize a 2×2×2 factorial design. This design results in 8 unique groups (strata) per country. These calculations assume equal variance across groups. The sample size per group (stratum) can be estimated using the formula:

$$n = \left(\frac{Z_{\alpha/2} + Z_{\beta}}{\Delta/\sigma} \right)^2$$

Scenario 1: Effect Size (Δ) = 5	Scenario 2: Effect Size (Δ) = 3
$n = \left(\frac{1.96+0.84}{5/10} \right)^2$	$n = \left(\frac{1.96+0.84}{3/10} \right)^2$
n=31.36	n=87.04
n=32 per group	n=88 per group
Total Groups - 8 Total per Country – 256 Total for Two Countries - 512	Total Groups - 8 Total per Country – 704 Total for Two Countries - 1408

5.1.2 SELECTION AND SOURCE OF PARTICIPANTS

We recruited participants by targeting yoga studios and other local community partners with announcements and fliers, emails, and social media channels. We ensured that the participants represented a variety of yoga channels and reflected the diversity within the yoga community.

5.1.3 INCLUSION CRITERIA

For both quantitative studies, participants must be 18 years of age or older and have at least one year of experience in yoga practice and education, either through in-person or remote settings.

5.1.4 EXCLUSION CRITERIA

Both quantitative studies exclude participants who do not practice traditional yoga styles, as well as those who practice nontraditional styles. We also exclude those who lack sufficient experience in traditional yoga practice, as well as those who practice hybrid forms of yoga, like yoga-pilates, acrobatic yoga, or other fusion styles.

5.1.5 ETHICAL CONSIDERATION

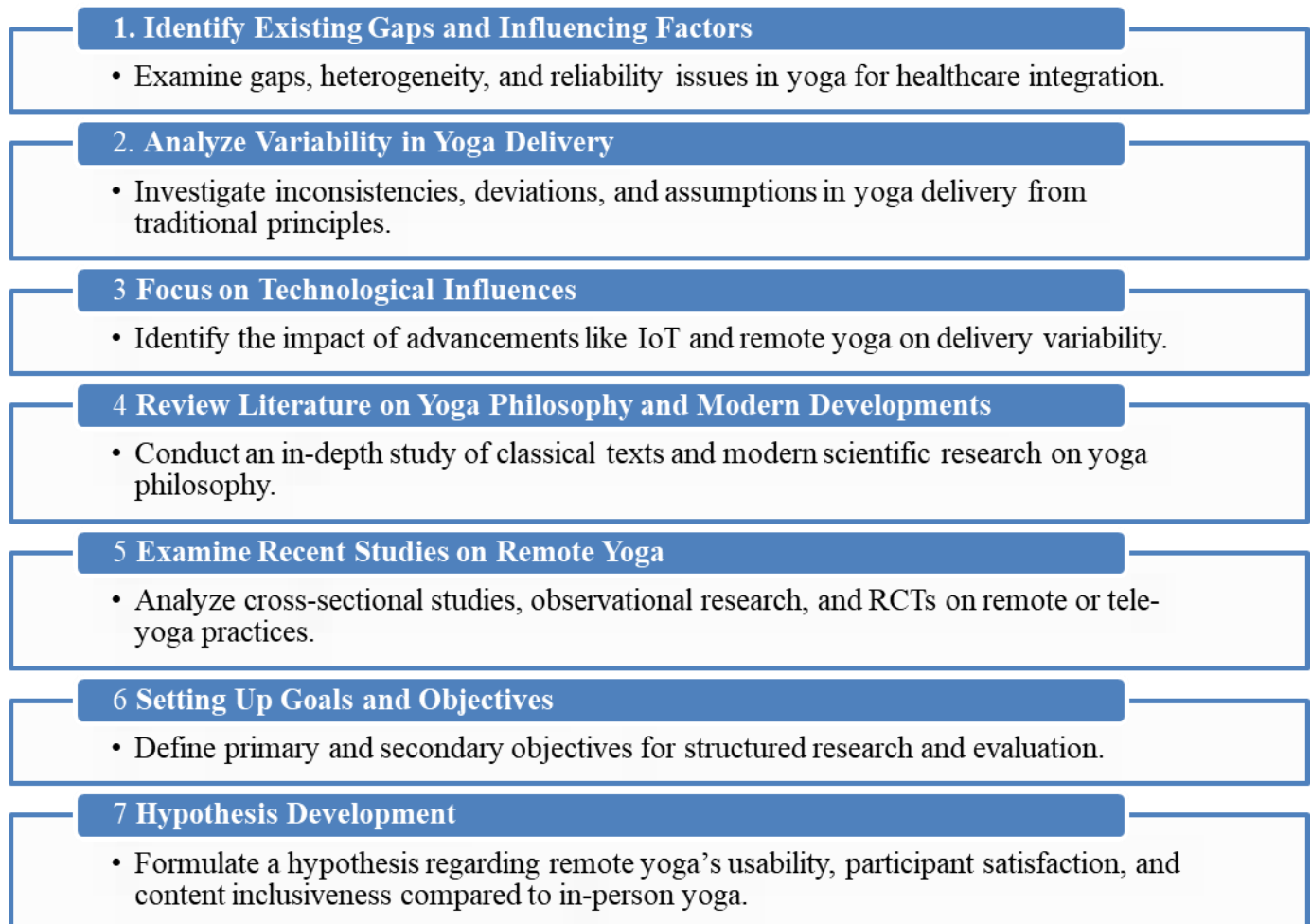
Participant privacy and safeguarded data confidentiality were ensured at all stages of the study, and a

secure, encrypted Google Form portal was used to manage and store participant information. We collected all information with permission, obtaining informed consent from each participant. Before the study started, all the necessary permissions and approvals were gotten. The SVYASA Institutional Ethics Committee (RES/IEC-SVYASA/232/2022) gave their ethical approval.

5.2 DESIGN OF THE STUDY

The Figure 8 below illustrates the preliminary process of designing our study leading to hypothesis formulation.

Figure 8

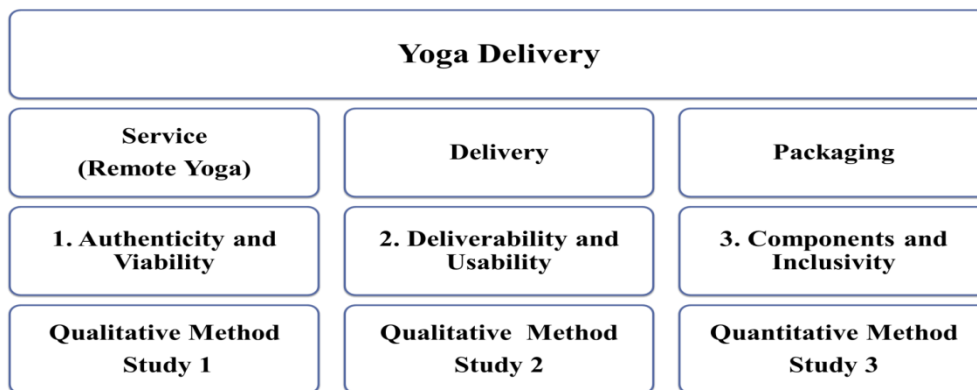


Preliminary study design approach

The delivery of yoga is comparable to the delivery of any other product or service. Its "packaging" represents the mix of components presented during practice sessions, while "delivery" refers to the process of physical or virtual transfer. Study 1 explores the authenticity of remote yoga through expert interviews, while Study 2 evaluates its deliverability and usability through quantitative methods.

Additionally, Study 3 examines the inclusivity of yoga components, referred to as the "mix of contents." The Figure 9 below illustrate the scope of three these three studies.

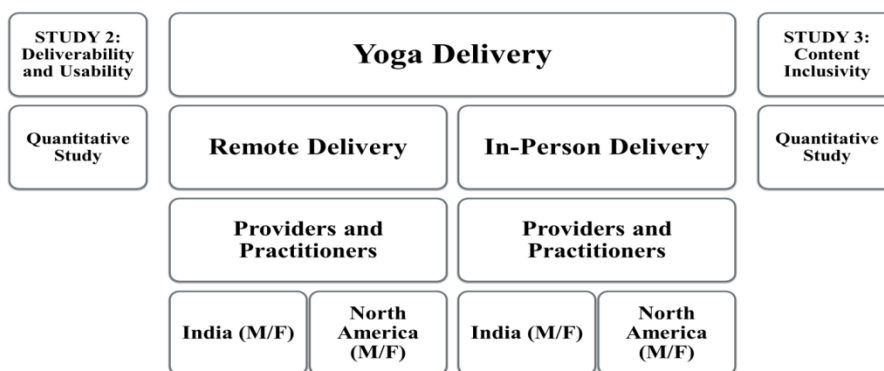
Figure 9



Scope of each study

As illustrated in Figure 10, the quantitative studies are segmented into key groups based on several factors: the mode of delivery (remote or in-person), the demographic (East or West), the participant role (provider or receiver), and the sex (male or female).

Figure 10



Segments and groups for quantitative analysis

The design of study 1 is summarized in Table 1 below.

Table 1:

Qualitative Study 1 Design

Focus	Remote yoga authenticity and viability
Design	Qualitative - Narrative Interviews
Data Collection	Qualitative - Narrative Interview
Method	To gain insights into gaps and the future of remote yoga delivery through interviews of yoga experts.
Data Collection	Google or Zoom Meeting Platform
Instrument Design or Selection	Qualitative Study: Custom narrative questionnaire, focusing on comparative analysis of divergence and convergence of remote yoga with traditional yoga delivery.
Ethical Consideration	Electronic informed consent was obtained from all participants before the survey. Ethical approval was granted by the ethics committee of S-VYASA (RES/IEC-SVYASA/232/2022). Informed consent, Secure Portal, Anonymous data handling
Recruitment Channels	Surveys was distributed via emails, social media, and direct outreach to yoga institutions, studios, and organizations.
Sample Size	20

The design of study 2 is summarized in Table 2 below.

Table 2:

Quantitative Study 2 Design

Focus	Functional Delivery factor like usability and satisfaction
Design	Quantitative Observational - Online Survey

Data Collection	Quantitative - Online Survey
Method	Quantitative Component: To evaluate the remote yoga delivery framework, focusing on usability and overall satisfaction.
Target Population	India and North America
Major Target	Delivery Segments: Online and In-person
Segments	Sex: Male and Female Role Based: Providers and Receivers Experience: Yoga Experts, Teachers, Studios, Practitioners, and Students
Data Collection	Survey hosted on Google Forms
Platform	
Instrument Design or Selection	Quantitative Study: TUQ (Telemedicine Usability Questionnaire) and a 21-item and 6 subscale Likert scale for assessing usability and satisfaction. The participants rated their experiences on a 7-point Likert scale
Survey Design	Reporting Results of Internet E-Surveys (CHERRIES) Checklist
Protocols	Strengthening the Reporting of Observational Studies in Epidemiology (STROBE)
Ethical Consideration	Electronic informed consent was obtained from all participants before the survey. Ethical approval was granted by the ethics committee of S-VYASA (RES/IEC-SVYASA/232/2022). Informed consent, Secure Portal, Anonymous data handling
Recruitment Channels	Surveys was distributed via emails, social media, and direct outreach to yoga institutions, studios, and organizations.
Sample Calculation	Target of 192 participants per segment

Sample Size 1,767 participants, 801 from India and 966 from the North America

The design of study 3 is summarized in Table 3 below.

Table 3:

Quantitative Study 3 Design

Focus	Delivery Inclusiveness of yoga component
Design	Quantitative Study
Data Collection	Quantitative – Online Survey
Method	Quantitative Component: To evaluate the Inclusiveness of yoga content delivered.
Target Population	India and North America
Major Target	Delivery Segments: Online and In-person
Segments	Sex: Male and Female Role Based: Providers and Receivers Experience: Yoga Experts, Teachers, Studios, Practitioners, and Students
Data Collection	Survey hosted on Google Forms
Platform	
Instrument Design or Selection	Quantitative – The Essential Properties of Yoga Questionnaire (EPYQ). The 14 subscales included 62 items, assessing the content and coverage of yoga practices. The participants rated their experiences on a 5-point Likert scale
Survey Design	Reporting Results of Internet E-Surveys (CHERRIES) Checklist
Protocols	Strengthening the Reporting of Observational Studies in Epidemiology (STROBE)
Ethical	Electronic informed consent was obtained from all participants before the

Consideration	survey. Ethical approval was granted by the ethics committee of S-VYASA (RES/IEC-SVYASA/232/2022). Informed consent, Secure Portal, Anonymous data handling
Recruitment	Surveys was distributed via emails, social media, and direct outreach to yoga
Channels	institutions, studios, and organizations.
Sample Calculation	Target of 192 participants per segment
Sample Size	2,619 participants, 1296 from India and 1323 from North America

5.3 VARIABLES STUDIED

The summary of variable used in three studies is shown in Table 4 below.

Table 4

Dependent variable used in the study

Qualitative Study 1	Authenticity and Feasibility
Quantitative Study 2 - TUQ	The TUQ instrument consists of 21 items distributed across the following 6 key subscales: <ol style="list-style-type: none"> 1. Usefulness 2. Ease of Use and Learnability 3. Interface Quality 4. Interaction Quality 5. Reliability

6. Satisfaction and Future Use

Quantitative **Study 3** – The EPYQ, 62 item, across the following 14 subscales representing key EPYQ components of yoga practice:

1. Acceptance/compassion,
2. Breathwork,
3. Physicality,
4. Active postures,
5. Restorative postures,
6. Body locks (bandhas),
7. Body awareness,
8. Mental/emotional awareness,
9. Health benefits,
10. Individual attention,
11. Social aspects,
12. Spirituality,
13. Meditation/mindfulness,
14. Yoga philosophy.

5.4 INTERVENTIONS

The study is based upon a survey questionnaire, and no intervention is planned in this process.

5.5 DATA EXTRACTION AND CLEANING

We designed Google Form to prevent duplicate or incomplete entries. We extracted the date from the

Google form, anonymized it, cleaned it, and structured it before transferring it to the statistical analysis platform JASP. Outliers were removed using Mahalanobis distance.

5.6 DATA ANALYSIS

Following analysis was performed

1. **Factor Analysis:** Confirmatory Factor Analysis (CFA) and reliability testing to validate the instrument.
2. **Correlation and Reliability:** Item correlation matrix and scale reliability analysis.
3. **Qualitative Analysis:** Narrative analysis of qualitative responses.
4. **Demographic and Participant Analysis:**
 - a. Analysis of demographics, including yoga styles practiced, participant goals, motivations, and reasons for engaging in remote yoga.
5. **Statistical Analysis:**
 - a. Descriptive statistics to summarize data.
 - b. T-tests and chi-square tests
 - c. Multivariate analysis to explore relationships between variables.