



**WOMEN IN FACTORIES
LITERATURE REVIEW**

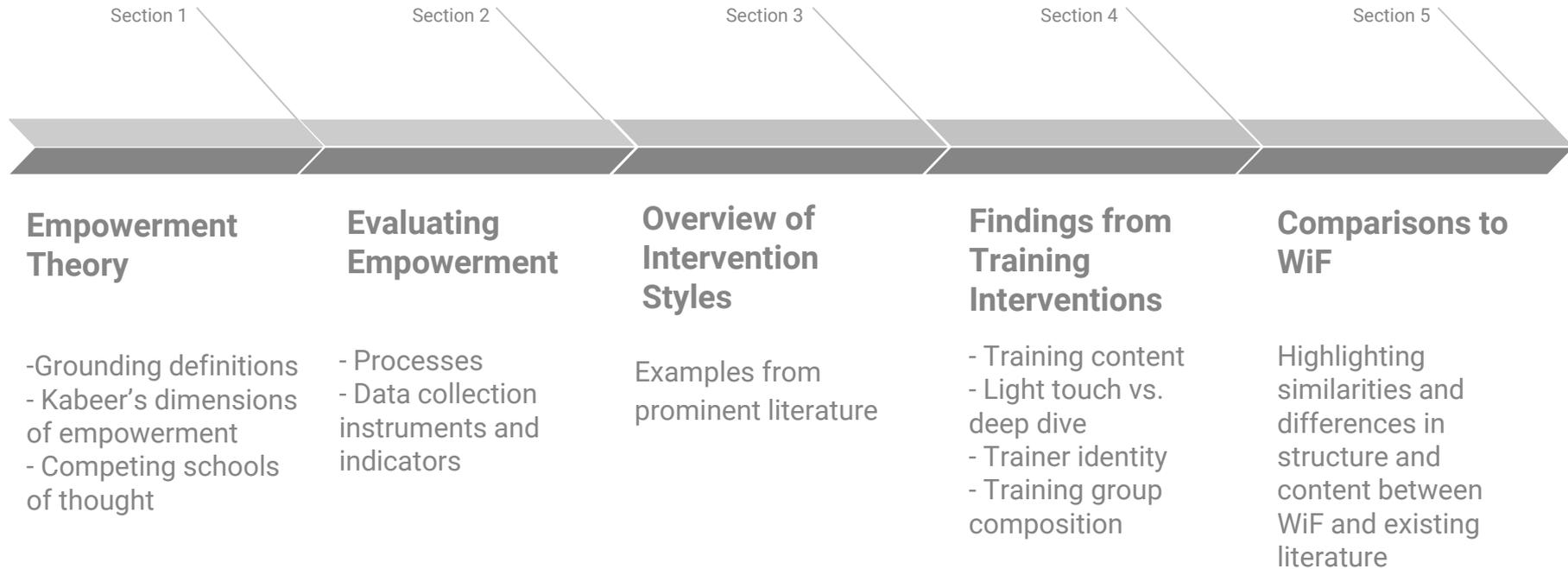
Ana Antolin
Laura Babbitt
Drusilla Brown
Dirayati Djaya
Arin Kerstein
Julia Olszewski
Negin Toosi
Elyse Voegeli

Maria Ferraz
Derek Jian Yuan Goh
Ananya Ganesh
Alice Janigro
Tejas Joshi
Ayda Lulseged
Kaileigh Stopa
Alexis Tatore
Kenneth Weitzman
Jiaqi Yuan

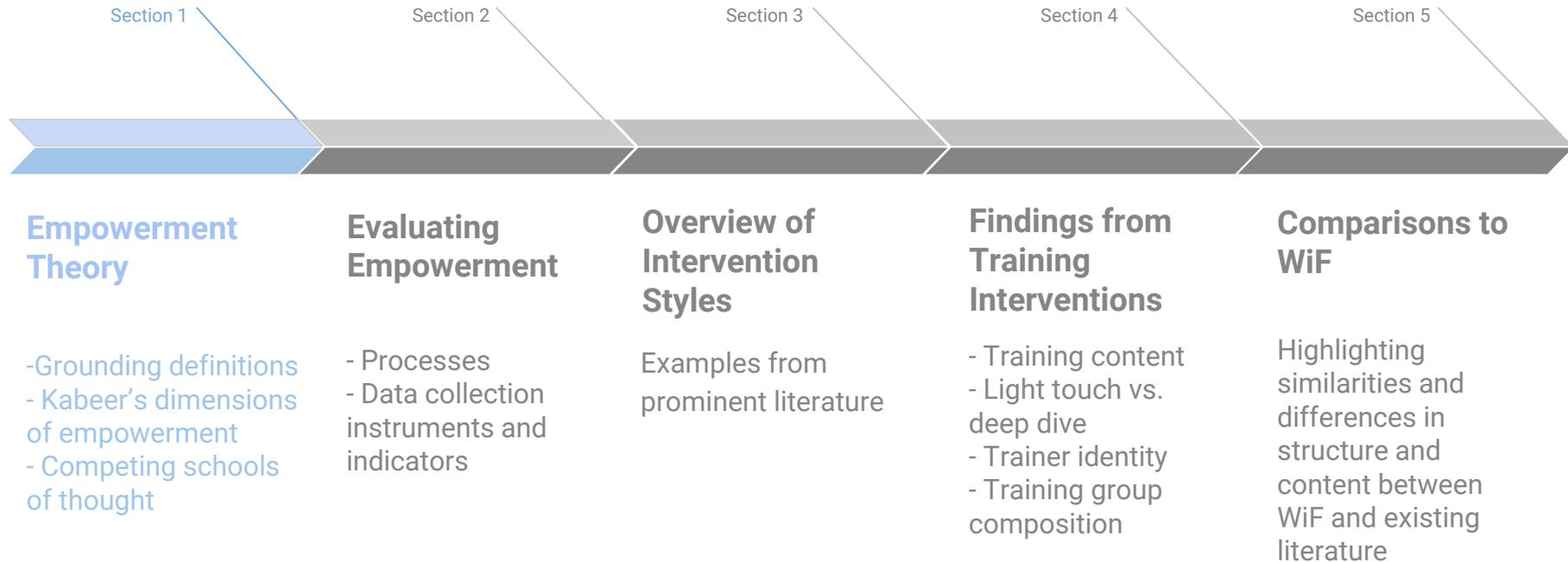
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Medford, MA
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Overview



Empowerment Theory



Empowerment refers to a process through which:

Individuals who lack the ability to make meaningful choices in their lives acquire such an ability.
(Kabeer 1999)

A person or group of people are able to practice enhanced decision-making power and influence over their lives.
(Drydyk 2008)

The disempowered break down both psychological and institutional barriers to grow their own capacity to shape their environment.
(Drydyk 2008)

Achievements

Health, education, civil rights, opportunities, employment status

Kabeer's Dimensions of Female Empowerment

Resources

Material resources that enhance people's ability to make decisions

Agency

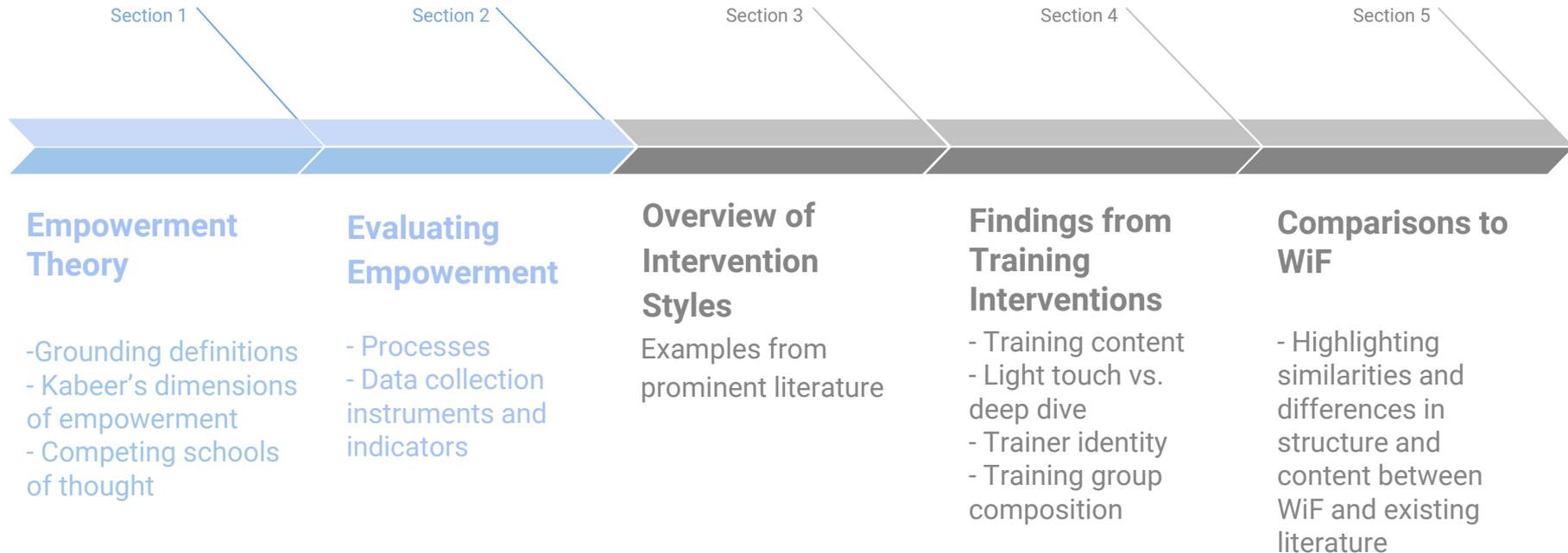
Participation, voice, and influence

Schools of Thought

Different schools of thought develop their own definitions of, metrics for, and interventions to impact empowerment on individual, household, and community levels:

- Economic
- Sociological
- Psychological
- Philosophical/Ethical
- Feminist

Evaluating Empowerment



J-PAL's 4-Step Process for Measuring Empowerment

Step 1: Formative Research

- Discussions with local community members
- Defining empowerment within cultural context
- Understanding local gender norms and social maxims
- Identifying unique barriers to empowerment

Step 2: Theory of Change, Outcomes, and Indicators

- Identifying desired change
- Finding tangible indicators of desired change
- Pinpointing the intervention's result(s)
- Documenting ways to track change as it occurs over time

Step 3: Data Collection Instruments

- Selecting a data collection method best suited for the respondent pool and the expected response
- Formulating relevant, easy-to-answer questions that minimize reporting bias
- Tailoring questions to local environment
- Incorporating non-survey measures as well

Step 4: Data Collection Plan

- Determining when, where, and how the data will be collected
- Identifying who will collect the data and how this may impact responses
- Making data collection methods uniform across treatment and control groups

Data Collection Instruments and Indicators

Type of Empowerment

Outcome Examples

1

Economic Opportunity

- Self-confidence, leadership skills, teaching ability (Macchiavello et al. 2015)
- Number of business loans taken out, expenditures, household income (Field et al. 2016)

2

Education

- Test scores (Duflo, Dupas, and Kremer 2017)
- School participation habits (Bandiera et al. 2015)

3

Political Engagement and Governance

- Electoral outcomes and voting records (Beaman et al. 2009)
- Civic engagement (Baldwin et al. 2016)

4

Health

- Nutrition habits (Buchmann et al. 2017)
- Sexual health knowledge and behavior, teenage pregnancy (Dupas, Huillery, and Seban 2018)

5

Social Perceptions

- Expectations for children (Björkman-Nyqvist and Jayachandran 2017)
- Opinions on gendered violence (Almas et al. 2015)

Measurement Instruments

Outcome Examples

Surveys

- Access to financial services (Beaman et al. 2009),
- Self-reported decision making habits (Ashraf, Karlan, and Yin 2006)

Public Records

- Unemployment statistics (Bandiera et al. 2012)
- Electoral outcomes and voting records (Beaman et al. 2009)
- School ledgers and test results (Baird, McIntosh, and Ozler 2011)

Administrative Data

- Bank account activity (Field et al. 2016)
- High school completion (Ibarraran et al. 2012)
- Promotions, absenteeism, and job migration (Uckat and Woodruff 2017)

Biomarkers

- Stress levels (Lopez-Peña et al. 2016)

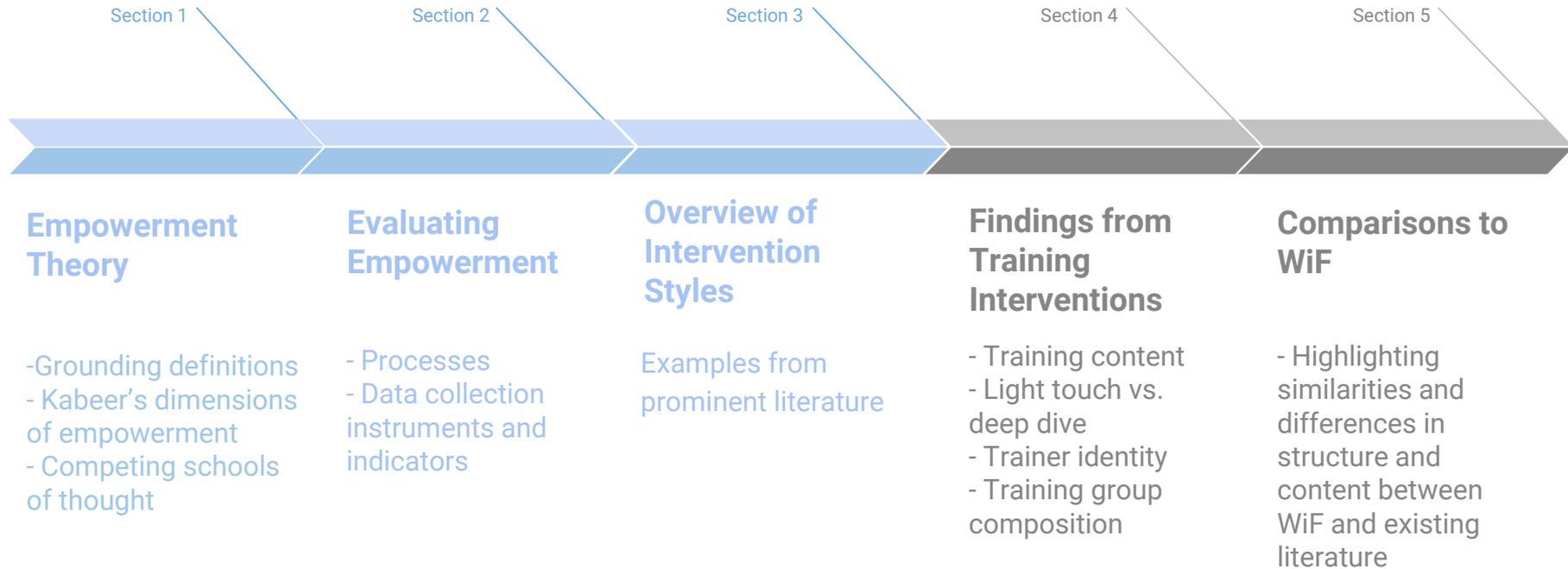
Observational Data

- Women's participation in community meetings (Casey, Glennerster, and Miguel 2012)

Implicit Association Tests

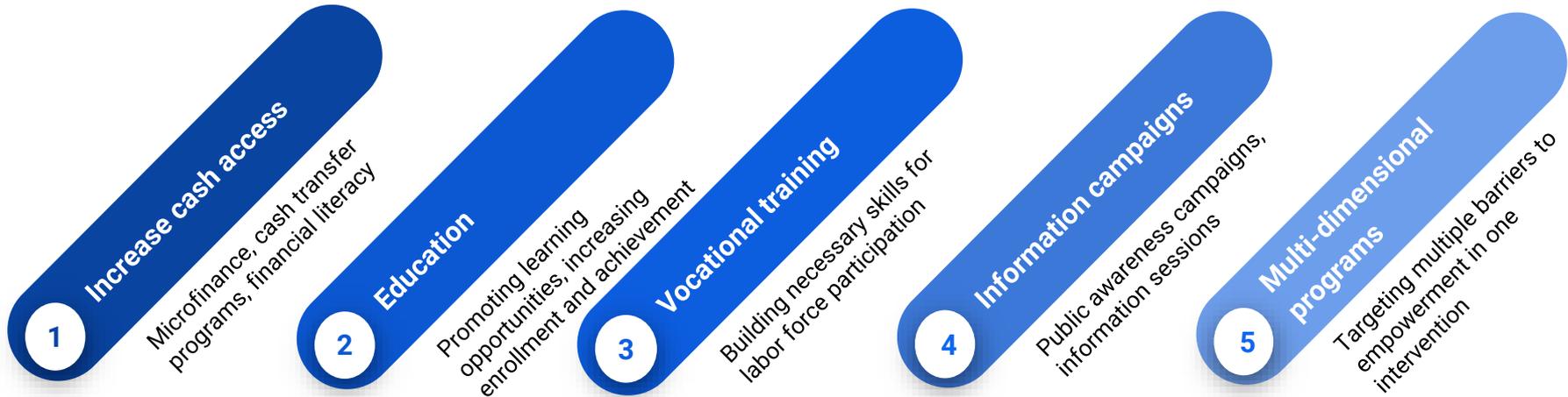
- Level of association of men with leadership qualities (Beaman et al. 2009)

Overview of Intervention Styles



Examples of Women's Empowerment Interventions

Experimental research has documented interventions that aim to tackle multiple barriers to empowerment through varied approaches



Interventions that Increase Financial Resources

Challenge: Many researchers have attributed inhibited women's empowerment to women's lack of basic financial capital and other resource-level constraints to promote other forms of empowerment.

Innovation: Many interventions attempt to increase resource access through variations of savings, credit, and cash-transfer programs.

Examples of Microfinance Interventions

Title	Location	Intervention	Measurement	Results
<p>“Female Empowerment: Impact of a Commitment Savings Product in the Philippines”</p> <p>Ashraf et al. 2006</p>	Philippines	<ul style="list-style-type: none"> - Savings product - Must reach goal time or goal quantity of funds before withdrawing - Marketer educates clients on importance of savings before the intervention 	<ul style="list-style-type: none"> - 3,125 bank clients (male and female) - Measured impact on household dynamics and female bargaining power 	<ul style="list-style-type: none"> • Improved female bargaining power in the household • Increase of female-related assets purchased • No effect on female empowerment when a male held the savings product
<p>“Cash or Condition? Evidence from a Cash Transfer Experiment”</p> <p>Baird, McIntosh, and Özler 2011</p>	Malawi	<ul style="list-style-type: none"> -Cash transfers to families conditional on school attendance -Unconditional monthly cash transfers 	<ul style="list-style-type: none"> - 2,284 school girls - Measuring impact of transfers of child marriage, teen pregnancy, school attendance, and cognitive ability 	<ul style="list-style-type: none"> • CCTs effective in increasing school attendance • CCTs increased likelihood of enrollment in later schooling as well • UCTs effective in decreasing rates of child marriage and teen pregnancy
<p>“Willing but Unable: Short-Term Experimental Evidence on Parent Empowerment and School Quality”</p> <p>Beasley and Huillery 2015</p>	Niger	<ul style="list-style-type: none"> -Grants paid to parents on school committees -No guidance provided for investment of the grants 	<ul style="list-style-type: none"> - 500 schools received an average of \$209 per school in cash transfers - Studied effect on school quality and parent involvement 	<ul style="list-style-type: none"> • Significant increase in parent involvement in school management • Little to no impact of grants on school quality or improved learning

Education Interventions

Challenge: Education for both male and female students is often unattainable due to family obligations and financial restrictions, limiting potential for future achievement.

Innovation: An intervention in Ghana attempted to alleviate barriers to education by providing free secondary school to a number of randomly selected male and female students.

Sample: 1,028 male and 1,036 female students; 682 of these students were awarded the scholarship.

Findings:

- Male and female scholarship winners scored 0.15 standard deviations higher on standardized tests than control group students.
- Scholarship recipients had increased enrollment rates in tertiary education.
- Scholarships led to enduring drops in female marriage and fertility rates.
- Male and female scholarship students were more likely to earn positive income in the future.
- **Treatment effects on test scores and enrollment/completion of continued education were stronger on females than males:**
 - Female students in the treatment group increased time spent in secondary high school by 76%, while males increased their time spent by 62%.
 - Female students saw a 63% increase in secondary school completion rates, while male students saw a 49% increase, along with similar trends for increased learning.

Vocational Training

Challenge: Empowerment may be limited by a lack of opportunities to build human capital based on previous limited educational opportunities.

Innovation: Many vocational and youth unemployment programs aim to empower by building skills to bring people into the labor force. A 2012 study documents a public program in the Dominican Republic that improved empowerment indicators beyond employment opportunities for women in the study by targeting non-cognitive and socio-emotional skills.

Intervention: The Juventud y Empleo program targets youth between 16 and 29 years of age who did not complete high school. The program offers job training courses (75 hours of basic or life skills training, and 150 hours of technical or vocational training) and private internships. Those interested are randomly selected within vocation and others are used as the control group.

Sample: 10,309 individuals including 6,391 (62%) females

Findings:

- Trained females, unlike males, were more likely to be "employed" or "unemployed" than inactive, showing a desire to be a part of the labor force.
- Teenage pregnancy reduced significantly.
- Soft skills improved for men and women.
- Women and younger participants reported significantly higher expectations for the future in terms of health, prospects for their children, and other related outcomes.
- Males and females demonstrated significant improvement in non-cognitive skills while only females demonstrated significant improvement in grit.

Information Campaigns

Challenge: Sometimes, empowerment is inhibited by information asymmetries within society. Can interventions improve empowerment outcomes by addressing these asymmetries? **Research says yes, with the potential for spillover effects.**

Innovation: Researchers evaluated the effect of an information campaign to boost knowledge of female workforce opportunities in the business process outsourcing industry in India (high share of female workers compared to other sectors, relatively high paying)

Intervention: Paid recruiters visited treatment villages once a year for three years, holding information sessions exclusively for females and providing contact info and offering free placement assistance. Recruiters did not visit control villages.

Sample: 3200 households across 160 villages in rural districts surrounding Delhi, India over three years.

Findings: Spreading information made an impact on targeted females and on long term empowerment of young girls from treatment villages through investments in their development in anticipation of their employability.

- **Along with helping adult females find jobs, this intervention spurred many education and health investments for young girls.**
 - Some females invested more in learning job skills, perhaps due to the increased confidence in being able to apply those skills and be compensated.
 - Females aged 18-24 in treated villages were **2.8 percentage points more likely to be enrolled in vocational training** and expressed **higher desire to work outside the home** both before and after marriage/kids.
- Young women in treatment groups were **5-6 percentage points less likely to get married or to have given birth** over the three-year intervention period and reported wanting to have **0.35 fewer children**.
 - While results cannot predict long-term fertility impacts, they show that women significantly delayed this process.

Care Incentives

Challenge: Despite attempts to devise macroeconomic estimates of unpaid care work, policy decisions often omit consideration of unpaid care work due to the absence of reliable measures and valuations. This disadvantages females who, compared to men, commit more daily hours to care work and, when employed, do not experience a proportionate reduction in their total unpaid care obligations.

Description: GrOW and Institute for Development Studies (IDS) supported research surveyed assessment approaches for unpaid care work; studied the effect of public and private care assistance programs and policies on easing women's unpaid work obligations in order to promote workforce engagement; and assessed the impact of care work's social dynamics on women's empowerment.

Findings:

- Flexible jobs that accommodate female workers' paid and unpaid work commitments are typically insecure and low paying. Programs promoting job attainment and income growth without provision of child care have resulted in women working more hours per day and experiencing greater economic stress caused by job insecurity, commuting costs, and poor working conditions. Emotional and physical fatigue of women workers is not only harmful to the worker's wellbeing but can lead to degraded quality of childcare rendered.
- Market based assumptions of unpaid care work fail to acknowledge the extent of household participation in care work and the impact of efficiencies in promoting wellbeing and productivity. Methodological limitations remain as unpaid care data is typically drawn from self-report surveys and time-diaries.
- Government policy and budget allocation typically fail to address household care needs due to underfunding and lack of data. However, subsidized and affordable child care options can be met through public and employer provided services.
- Provision of subsidized child care has shown empirically positive effects among lower income, lesser educated European households and had "a positive impact on women's hours of paid employment in Guatemala, Brazil, Mexico, and China."

Care Incentives

Challenge: Job quality impacts a women's overall well being and ability to exercise agency. Empowerment initiatives offering jobs to unemployed women may undermine a women's overall wellbeing if those opportunities are low quality and domestic care responsibilities are not reduced.

Description: From 2015-2017, researchers with the Growth and Economic Opportunities for Women (GrOW) program studied the gender distribution of domestic care responsibilities and its effect on women's employment and the wellbeing of women and their children. Research further examined the impact of access to affordable child care options and "assessed how programs and policies can help women achieve a better balance between paid and unpaid work."

Sample: Data collected through surveys, RCTs, interviews, and participatory research among low-income households in Kenya, India, Nepal, Tanzania, and Rwanda.

Findings: Effective female empowerment initiatives involve multifaceted interventions that promote workforce participation by offsetting a women's household obligations.

- Infrastructural upgrades that improve water, transport, and electricity access and free or reduced-cost child care services can greatly ease the burden of a woman's domestic responsibilities which otherwise impede her workforce engagement.
- Among residents of a community outside Nairobi, Kenya, the study found increased cognitive delays of children not enrolled in daycare programming (22%) when compared to children enrolled in daycare programming (9%).
- Mothers receiving daycare vouchers worked 5 hours less per week.
- Broadly, women and prior research findings both support the integration of child care programming in effective empowerment interventions.

Sexual Assault Prevention

Challenge: Women in Kenya experience high rates of childhood sexual assault (11.3% to 46% of women report incidents) and the standard Kenyan programs to increase awareness of the problem have had minimal effect on the incident rate of sexual assault. The consequences of such Gender-based violence include physical and psychological harm including HIV, other sexually transmitted infections, unwanted pregnancy, and social isolation.

Intervention: Experienced local women were hired and trained to instruct and supervise six 2-hour weekly intervention sessions. The sessions focused on empowerment and self-defense and included lessons on assertive communication skills, physical defense, self-efficacy, and de-escalation and negotiation.

Sample: 1978 adolescents ages 13 to 20 from 4 informal settlements surrounding Nairobi received 12 hours total of intervention training over 6 weeks. 428 adolescents (control group) of statistically similar age received one standard 1.5-hour life skills class.

Findings:

- Incident rate (rapes/100 person-years) in the participating settlements decreased from 17.9 at the baseline to 11.1 at follow-up (10.5 months after intervention) while the rate within the control group settlement had no significant change.
- Disclosure of sexual assault increased significantly in the intervention group from 51.6% before intervention to 75.0% after intervention; disclosure rate for the control group remained constant at 53%
- At follow-up, over half of the intervention group reported having used skills from the sessions to stop assailants from forcing them to have sex thus stopping 817 assaults.
- 957 incidents of sexual harassment were prevented by participants using skills learned during intervention sessions.
- Verbal skills were the most common tool used to halt incidents sexual assault and harassment.

Economic Empowerment Measures

- Laszlo, et al. (2017) proposes an intra-household model typology comprised of direct (agency, e.g. decision making), indirect (outcome, i.e. result of decision), and constraint (external imposed factors impacting agency, e.g. law) measures that can be either objective or subjective.
- Women's economic empowerment measures should be varied yet offer flexible "cross-regional and time-invariant instrument(s)" that are not outcome dependent but rather built around a theoretical concept relevant to the scope of research.

Combined Vocational Training and Sexual Education

Intervention

Vocational training and sexual education program

Location: Uganda

- Vocational (Life Skills) training: Exposing adolescent girls to a number of income generating activities
- Sexual Education training: Reproductive health, pregnancy, menstruation, STDs, HIV/AIDS

Measurement

Survey data:
Indexes to quantify responses

Sample Size: 5,966 surveyed at baseline.

- Economic Empowerment:
 - Entrepreneurial Ability
 - Self-Employment
 - Wage-Employment
- Control over Body:
 - Is married/has children
 - Had sex unwillingly in past year
 - Pregnancy/HIV knowledge
 - Condom/Contraceptive usage
- Aspirations:
 - Suitable age at marriage for woman/man
 - Preferred number of children

Results

Multi-pronged approach surpasses impacts of previous standalone interventions.

- Adolescent girls 66% more likely to engage in income-generating activities at endline
- Self-employment rates 50% higher
- 24% drop in fertility rates over 2-year period
- 33% drop in reported instances of having sex unwillingly:
 - Improved knowledge of reproductive health
 - Economic power translating into body control

Combined Training, Education, and Microfinance

Intervention

Vocational Training, Health Skills, Microcredit

Location: Sierra Leone

- Vocational Training
 - Income generating activities
 - Hairdressing, tailoring, animal husbandry, agriculture
 - Financial literacy
- Health Education
 - Sexual/reproductive health, pregnancy, menstruation
 - Gender
 - Adolescent responsibility
- Microcredit
 - Self-employed girls offered credit of \$100 USD to finance business

Measurement

Survey Data

Sample Size: 5,700 adolescent girls

- Group 1
 - Vocational Training
- Group 2
 - Vocational Training
 - Health Education
- Group 3
 - Vocational Training
 - Health Education
 - Microcredit
- Group 4
 - Control Group

Innovations

Study ongoing, results forthcoming

- Study Innovations
 - Groups receive different combinations of training programs, rather than each group receiving a different one
 - Study will also track interpersonal relationships in the villages throughout the programs to see how training affects non-participants

Comparing Financial Incentives to Empowerment Training

Intervention

Empowerment training vs.
conditional incentive to reduce
child marriage

Location: Bangladesh

- Group 1: Empowerment Training
 - Literacy
 - Numeracy
 - Oral Communication
 - Financial Literacy
- Group 2: Conditional Incentive
 - ~\$16/year of cooking oil transferred to homes on condition that daughter would not marry until age of consent.
- Group 3: Training and Incentive

Measurement

Survey Data

Sample Size: 15,739 girls aged 15-17

- Likelihood of marriage at age 15-17
- Teenage childbearing rates
- School enrollment

Results

Incentive:

More effective in reducing child
marriage and teen pregnancy

Training:

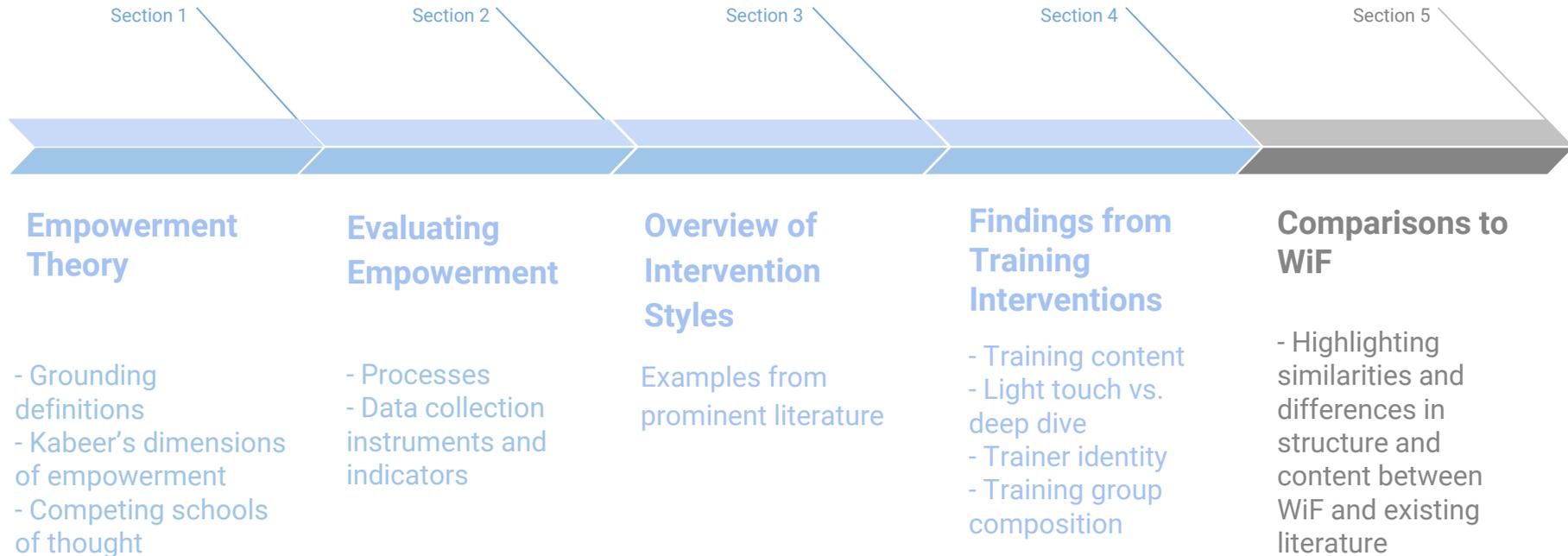
Increased school enrollment

- Financial incentive reduced the likelihood of child marriage by 23%.
- It also reduced the likelihood of teenage pregnancy by 13%.
- Girls in the incentive group were 24% more likely to be in school. Girls in the incentive group were 10% more likely to be in school.
- Financial incentive on the condition of marriage is beneficial even to girls who are not enrolled in school.

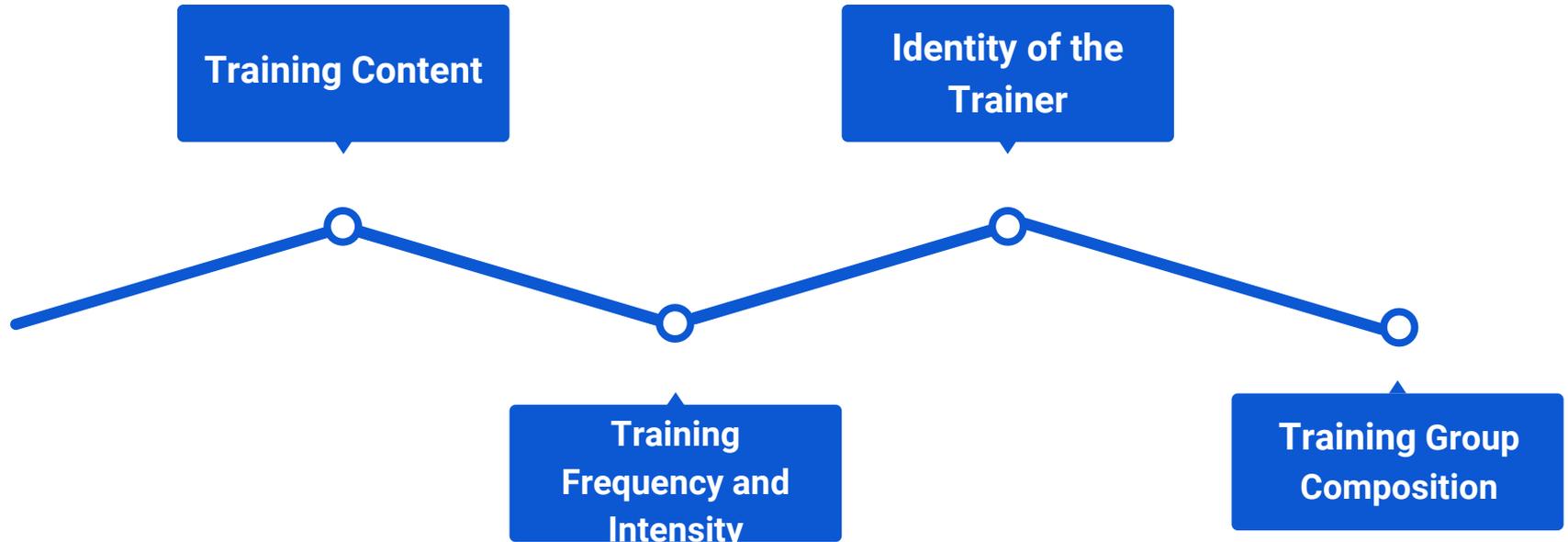
Takeaways from Different Intervention Styles

- Microfinance programs provide women access to resources (financial capital), but can have limited sustained empowerment effects.
- Information campaigns can be powerful in providing a new sense of agency when information asymmetries are inhibiting women's empowerment.
- Reducing barriers to educational attainment can improve women's opportunities to achieve, with potential to have empowerment effects in other ways.
- Vocational training programs are a common intervention approach aimed at combating youth unemployment and can provide resources (human capital) to promote achievement via employment.
- **Combining methodologies into multi-faceted interventions can bolster programs and target several empowerment dimensions.**

Findings from Training Interventions

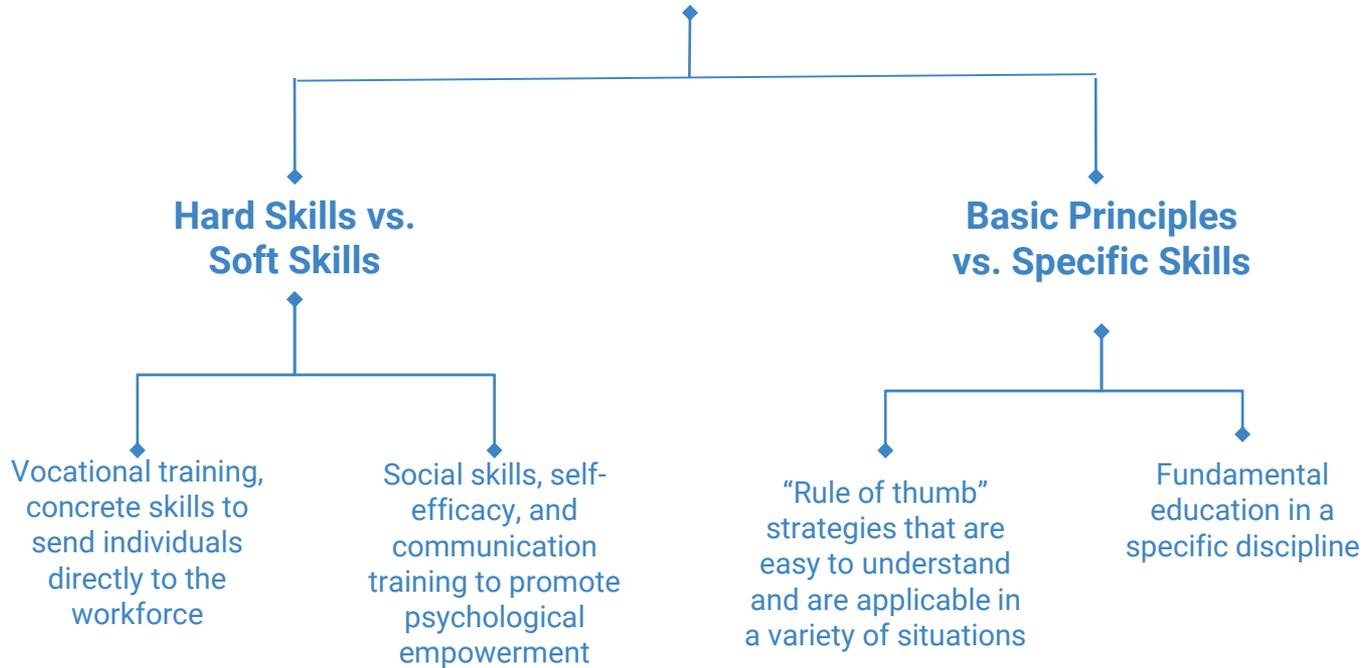


Considerations in Designing Training Interventions



Training Content

Current research debates on which types of training will maximize empowerment



Training Content

Description : A 2015 study in Bangladesh addresses perceptions of males' higher capability to supervise and their prevalence in supervisory roles in the female-dominated garment industry. The study assesses these perceptions and compares them to skills/efficiency reality and evaluates performance and attitude changes after training.

Intervention: Conducted a six-week operator-to-supervisor training program in 24 factories to influence factories to promote female supervisors and train more females than they otherwise would. The program featured hard and soft skills modules. Assessed newly trained supervisors' performance and confidence to compare gendered trends.

Sample: 175 trainees, 430 operators surveyed in two phases from 2011-2014

Findings:

- Men were thought to be stronger supervisors than women due to higher perceived levels of technical knowledge of garment production; but, in reality, there were no statistically significant differences in levels of literacy, reasoning, or technical knowledge between men and women before training.
 - There were no significant improvements in technical knowledge for either men or women. **Training closed the gender gap in communication and leadership skills cultivated in soft skills modules, but left women reporting lower self-confidence levels as supervisors for the first few months on the job.** This leveled over time.
 - After training, women initially performed worse than men but caught up after a few months. They outperformed men in female-dominated production teams.
 - **Trained men had improved perception of women as supervisors and were demotivated in their own promotion prospects.**
- Evidence from this study suggests that the impact of improving confidence through soft skills programs may be just as (if not more) effective in improving promotion potential than training that includes hard skills.

Example of a Soft Skills Program

Description: In a quasi-experimental study, researchers evaluated the Planning Ahead for Girls' Empowerment and Employability (PAGE) educational initiative, which was designed to help female students in India realize and pursue their future career goals.

Intervention: The empowerment and employability training attempted to “[build] girls’ agency and self-efficacy as well as [provide] them skills to plan their future” (16). Soft skills training impacted girls’ attitudes and aspirations for their careers rather than the specific practical skills to realize them.

Sample: 4,100 female secondary school students in Grade 9 or Grade 11

Findings: The study demonstrated positive changes in attitudes, self-efficacy, and views on gender equality. The intervention increased the number of girls who sought information about future careers and had a positive impact on the girls’ abilities to better articulate their professional goals.

- Participants reported facing Increased opposition from families for higher studies suggesting that soft skills programs cannot dismantle institutional or societal barriers to education.
- The intervention decreased the likelihood that participants had ever prepared a resume.
- These findings may suggest that, although soft skills training impacts psychological empowerment, its effects on fundamental barriers to empowerment may be limited.

Ongoing Research on Training Content

A current study in Bangladesh aims to better understand the impact of hard vs. soft skills training in leading women to be promoted to strong factory supervisor positions.

- Soft skills training group: four days of classroom training in confidence and leadership skills over two weeks, plus eight weeks of on-the-job training.
- Combined hard and soft skills training group: nine days over five weeks, plus eight weeks of on-the-job training. Includes soft skills training plus five days spent on technical skills
- Control group

Findings can help determine resource maximization and cost efficiency of future interventions.

Training Content

Description: Researchers further explored how to best design training programs in terms of prioritizing teaching fundamental principles vs. applicable strategies.

Intervention: Two different training programs tested for mostly female low-income clients for a bank in the Dominican Republic.

- Accounting training group: traditional, principles-based course
- “Rule-of-thumb” group: simple tools and strategies
- Control group

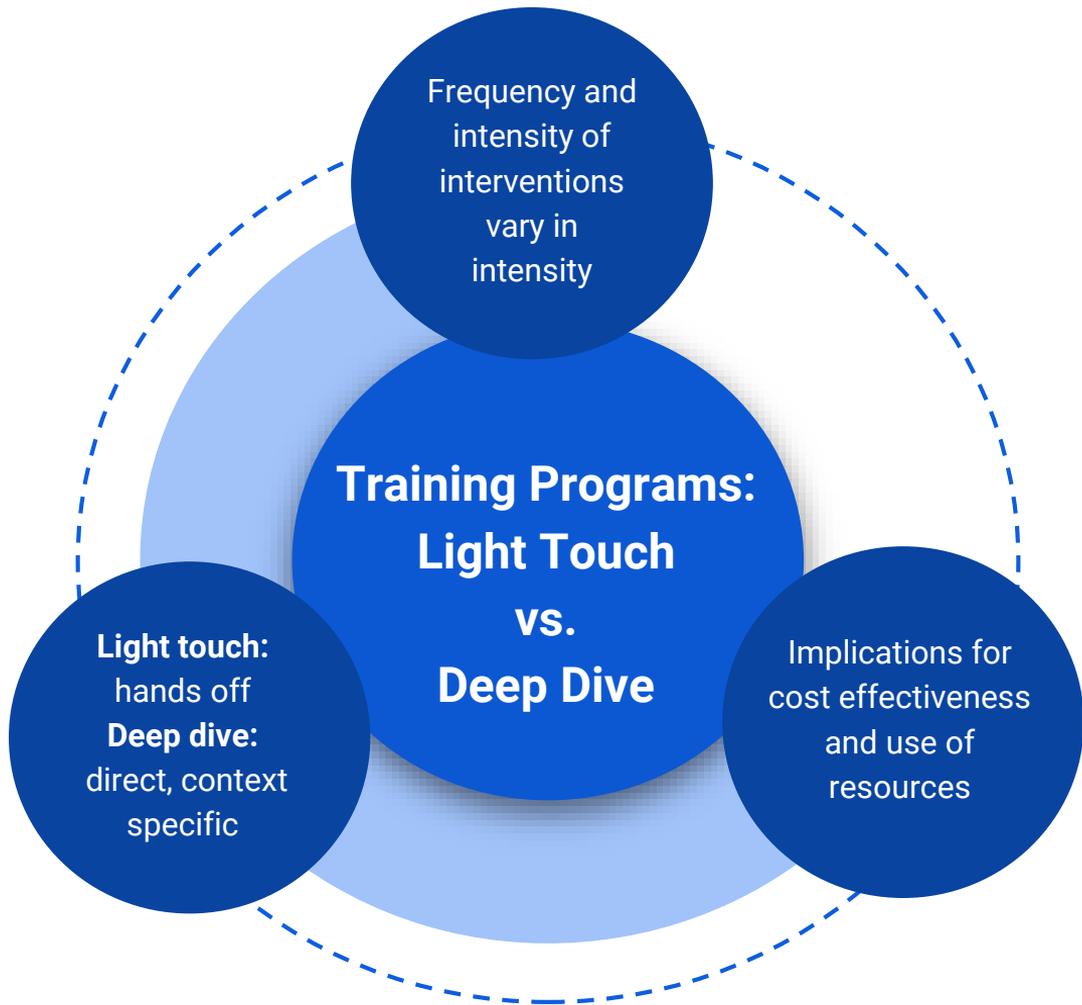
Sample: 1,193 clients who had expressed interest in financial training; two-thirds were assigned to receive five to six weeks of training, which was offered once a week for three hours at a time and included out-of-class assignments.

Findings:

- **“Rule-of-thumb” training was more effective** in improving participants’ business practices and outcomes. Results suggest that simple financial rules are easier to understand and implement in real-life business practices. Consistent with scarcity theory:
 - Rule-of-thumb training gives more applicable tools to those in a scarcity mindset, who “choose the most locally convenient response to pressing demands” (Shah, Mullainathan, and Shafir 2012).
- Neither training program had a strong effect on financial behavior or outcomes. **Additional support through follow-up visits did not make a difference for either training group.**
 - Researchers suggest that the simple lessons in the “rule-of-thumb” training were easy enough to conceptualize with the initial training, and challenges from the more complex training were unable to be resolved through a visit.
- **Implications:** Theory may be less useful than concrete practices when resources are limited. The usefulness of follow-up support can depend on training content and resources available to commit to follow ups.

Takeaways on Designing Training Content

- Researchers continue to debate what the optimal ratio of soft versus hard skills training is for empowerment training.
- While program designers aim to create concrete lesson plans, lessons learned do not always translate to knowledge applicable in real-life scenarios.
- The impact of soft skills training may depend on the nature of hard skills already possessed by trainees. Many soft skills training programs have increased women's agency but have had limited impacts in terms of productivity at work.
- Applicability of training content suggests that soft skills do not always translate to concrete improvement with regard to performance without supplementary hard skills.
 - Consistent with WiF Training models



Light Touch vs. Deep Dive

Description: A 2017 study in Bangladesh compared the impact of a light touch conditional incentive program to a deep dive empowerment training curriculum on **child marriage, teenage childbearing, and school attendance**.

Intervention:

- Empowerment Arm (Deep Dive): 5,239 girls were educated in literacy, reproductive health, numeracy, nutrition, and oral communication. In some randomized cases, financial literacy was added to the curriculum.
- Conditional Incentive Arm (Light Touch): 2,372 girls were given a stipend of cooking oil (worth about 16 USD/year) as incentive to postpone their marriages until legal age of consent.
- Training and Incentive Combination: 2,745 girls
- Control Group: 5,383 girls

Sample: 15,739 females aged 15-17

Findings:

- **Light touch training decreased likelihood of childhood marriage and teenage childbearing**, while empowerment training and the combined intervention had no effects.
- Both treatment arms increased school attendance with statistically significant results.

Light Touch vs. Deep Dive

Description: Researchers studied the importance of the intensity of training in Mali through a women's saving group program.

Intervention:

- Structured training: A structured 3-day training program for village representatives to learn about starting and managing saving groups
- Organic, light-touch training: A hired agent provided informal support by answering questions and offering advice.
- Control villages

Sample: 500 villages with 6,000 households

Findings:

- Households in intervention villages were **less likely to report not having enough food to eat and more likely to report owning assets** such as livestock.
- Villages that received structured training had higher participation rates in the program than organic treatment villages, but differences in outcomes were not statistically significant. The formal training was more expensive to implement, delivering marginally greater benefits to the villages that received formal training.
- Researchers did not find statistically significant effects of the program on health outcomes, school enrollment, investment in small businesses or agriculture, or women's empowerment, even in villages that received structured training.

The Potential of Light Touch “Nudges”

- Social psychology research demonstrates the potential impacts of such light-touch “nudges” when they are designed with precision and rooted in theory.
- Successful interventions target specific, recursive psychological processes with a broader understanding of a relationship dynamic or system in a specific context. It enables small-scale successes to snowball and amplify effects over time.
- Nudging behavior can have longer-lasting impact than a more intrusive program because it can create a more sustainable psychological change when the intervention ends.

Ongoing Research on Light Touch vs. Deep Dive

Description: Researchers are currently assessing the relative cost-effectiveness of intensive personalized training compared to a standardized approach in an ongoing study in Uganda.

Intervention details: Business skills training conducted by a private non-profit targeting female Ugandan entrepreneurs. Three groups:

- Light touch group: In the first year, two-day sessions once/month plus sector-specific working groups for targeted training. In the second year, refresher courses and individual visits from staff for custom support.
- In-depth group: All of the light touch benefits, plus eight weeks with individual student coach to develop business plan in first year and individual mentors for three months in the second year.
- Control group

Sample: 800 women, two-year training programs

Results may have implications for extent of guidance necessary to spur empowerment outcomes in entrepreneurs with a certain level of baseline skills.

Light Touch vs. Deep Dive Takeaways

- Several studies across disciplines demonstrate the potential of light touch programs in large-scale effects.
- Researchers demonstrate that while participation might be higher in deep dive programs, they may be limited in how much value they can add to light touch training programs (Beaman et al. 2014).
- Benefit: Higher scalability prospects exist for light-touch programs because implementation is cheaper, as long as they are undertaken with caution and great understanding of the psychological, financial, and educational dimensions at play.

Identity of the Trainer

Messenger impact on the intervention's effects can be dependent on the training context and materials.

Example: In a 2017 study, researchers assessed the impact of holding sexual education training programs with external female specialists or male community teachers to determine the importance of gender and role of the messenger in delivering the content of the training program.

- All interventions, **including those with different messengers**, decreased unprotected sex, reducing teen pregnancy by over 25%. Suggests that sexual behavior of target group is highly responsive to risk information through inexpensive interventions, regardless of training format or messenger. (The gender of trainer was not important here.)
- Consistent with earlier findings (George et al. 2012), this study found that internal community members were as effective as external specialists in educating the community population. (Almost all trainers in this context were female.)

Identity of the Trainer

- There has been recent research interest in determining the impact of the trainer's identity on the effectiveness of an intervention, specifically with regard to the role of a trainer's gender in influencing women's empowerment outcomes.
- The given examples' conclusions differ from our earlier findings in Indonesia that respondents' attitudes about gender stereotypes were predicted by the enumerator's gender (Babbitt et al. 2012).
- If identity of the messenger has no impact on training outcomes, interventions can utilize most cost-effective trainer in given context.

Training Group Composition

- Training effectiveness can be subject to the composition of the group being trained or post-training setting.
- Members of different cultures have different views on community connectedness and group dynamics, which can affect the way that trainees respond to programs in varying contexts.
 - Contrasting views of oneself in the context of a greater community and culture can influence the individual experience and response (Markus and Kitayama 1991).

Training Group Composition

Description: In a 2015 study, researchers demonstrated the importance of composition of training groups and the influence of peer effects, particularly within social groups, neighborhoods, social classes, etc.

Intervention: Field et al. studied the impact of peer effects on business behaviors by low income women in Ahmedabad, India, offering two days of business training for women, inviting some to attend alone and some with a friend (in addition to a control group) to determine a difference in business productivity and behavior.

Sample: 636 women age 18 to 50 who had actively saved or borrowed from the partnered bank between December 2004 and January 2006.

Findings:

- Women trained with a friend doubled their demand for loans and expanded their business activity, resulting in higher household income. Women trained alone were no more likely than women in the control group to have plans for business expansion.
- Training increased hours worked for both treatment arms, but only the group trained with a friend reported increased productivity at work.
- Effects were stronger for women from religious or caste groups with social norms that restrict female mobility (upper-caste women).
 - **Peer effects and intervention group composition can have heterogeneous impacts on different groups of interest**
- Results suggest that programs designed to empower restricted women through business training may be more successful if they harness peer support as part of their program design.

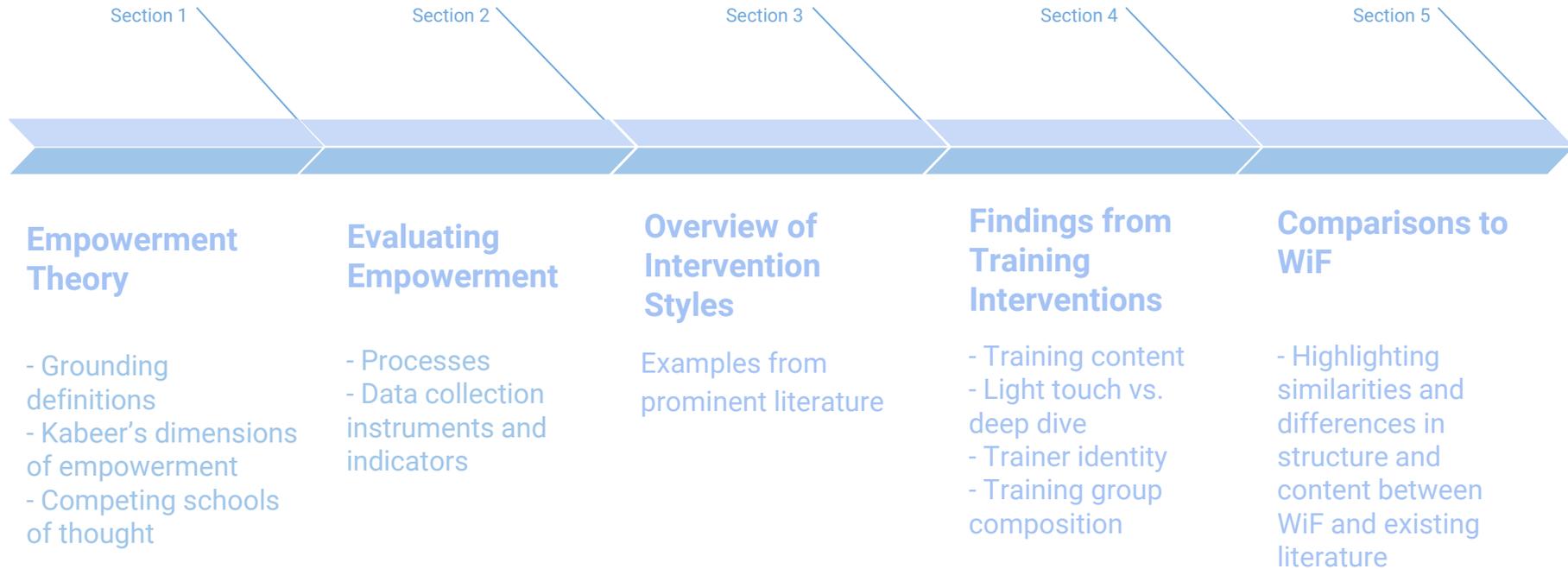
Training Group Composition

- The gender composition of a group impacted newly trained women's confidence and success early in their new supervisory roles (Macchiavello 2015).
- Researchers found that a program succeeded in increasing male engagement in women's health and safety in Rwanda by targeting the majority of training sessions toward men, along with several training sessions directed to their partners (Doyle et al. 2018).
 - Program was designed with an understanding of couples' power dynamics within the local context. This helped formulate an effective training program that promoted joint decision-making skills.

Takeaways of Training Group Composition

- Understanding contextual power dynamics can provide important insight into desired outcomes of specific interactions.
- Interventions must take note of social dynamics with regard to gender, age, social class, group mentality, and more.

Comparisons to WiF



Training Design

Program Feature	Foundational Training	Advanced Training	Other Literature
Program Objectives	Promote life and work skills for women and men including communication, gender awareness, health, and application of learning at work and home.	Promote advanced work and life skills for women including functional literacy, problem solving, personal finance, and legal empowerment.	<ul style="list-style-type: none"> ● Induce female promotions and assess supervisory capabilities in Bangladeshi factories (Macchiavello et al. 2015) ● Business skills training and mentoring for female entrepreneurs in Uganda (Fischer, Karlan, and Startz, ongoing) ● Vocational training for youth in the Dominican Republic (Ibarraran et al. 2012)
Training Frequency	1.5 hours/week for 15 hours total	1.5 hours/week for 93 hours total	<ul style="list-style-type: none"> ● 8 hours/day for six weeks ● Two-day sessions once/month plus sector-specific working groups for targeted training for one year, followed by either personal visits or along intensive daily individual coaching for 2-3 months at a time ● 225 hours
Training Intensity	Light touch	Deep dive	<ul style="list-style-type: none"> ● Deep dive ● Light touch vs. deep dive ● Deep dive

Training Design

Program Feature	Foundational Training	Advanced Training	Other Literature
Hard vs. Soft Skills	Focus on life skills and health topics. No technical trainings but expectations for factories to add technical skills training	No technical trainings but factories are encouraged to add technical skills training	<ul style="list-style-type: none"> • Combination of hard and soft skills training (Macchiavello et al. 2015) • Hard business tools and leadership development skills (Fischer, Karlan, and Startz, ongoing) • $\frac{1}{3}$ soft skills and $\frac{2}{3}$ hard skills (Ibarraran et al. 2012)
Training group size	Recommended 20-30 participants/session		<ul style="list-style-type: none"> • Varied by factory • 15-20 youths
Trainees	Male and female employees in groups determined by factories	Female employees with basic literacy skills in groups determined by factories	<ul style="list-style-type: none"> • Men and women with potential for promotion • Female entrepreneurs • Male and female youth who have not graduated high school
Sample Size	1,619 participants and 181 supervisors at baseline	730 participants and 96 supervisors at baseline	<ul style="list-style-type: none"> • 199 supervisor trainees and 430 employees • 800 entrepreneurs • 5,000 trainees

Program Findings

Program Feature	Foundational Worker Training	Foundational Supervisor Training	Advanced Worker Training	Advanced Supervisor Training	Findings from Similar Interventions
Confidence Levels, Communication	Confidence in voicing opinions increased with some training. Workers saw increased options in navigating social situations as they received more training.	Workers saw decreased options in navigating social situations when their supervisors received a lot of training.	<p>Lots of training increased workers' awareness of modes of communication other than yelling.</p> <p>Confidence in reporting mistakes at work increased with training amount.</p>	<p>Even a little bit of supervisor training increased worker confidence in voicing opinions at work.</p> <p>No effect on worker confidence in reporting mistakes at work.</p>	Self-confidence gap remains immediately after training but decreases in months after training. (Macchiavello et al. 2015)
Workforce Turnover	Workers with a little bit of training think more about quitting than non-trained workers.	Training supervisors offsets newly empowered trainees' increased thoughts about quitting.	Reduced worker turnover by 12.3 percentage points.	No effect.	Trained males were demotivated in their own promotion prospects and had higher turnover rates. No results on this for women. (Macchiavello et al. 2015)
Productivity	20 percent increase in productivity when supervisors have a little or some training.	Increased efficiency rate for all levels of supervisor training, up to 22.8 percent with a lot of supervisory training.	<p>Increased probability of reaching production target by 11 percentage points.</p> <p>Reduces frequency of line imbalances.</p>	Increased workplace productivity by 29 percentage points.	Training closed the efficiency gap between males and females over time. (Macchiavello et al. 2015)
Household Dynamics	Trained workers who were heads of household saw reduced household conflict. For others, household conflict fell when employees were trained.	Heads of household saw reduced household conflict with trained supervisors. Conflict rose for non-heads of household when supervisors received some training.	<p>Increased worker perception of control over how many children they'll have.</p> <p>Lots of training increased worker confidence in voicing their opinions at home.</p>	Significantly decreased reported instances of family arguments and disagreements.	Increased bargaining power within the household when the savings product was given to women, evidenced by the increased purchase of female-oriented assets. (Ashraf et al. 2006)

Considerations for Designing Training Interventions

- Different types of training content can be effective depending on desired outcomes, but emphasizing soft skills and applicable lessons has been effective in several cases.
- When crafted properly, light touch programs can spur widespread effects in a cost-effective manner.
- Research is inconsistent on the importance of a trainer's identity in facilitating outcomes, but our earlier research says that gender can matter.
- Composition of training groups can impact desired outcomes, especially in contexts that highly value aspects of community.

Works Cited

Almas, Ingvild, Alex Armand, Orazio Attanasio, and Pedro Carneiro. "Measuring and Changing Control: Women's Empowerment and Targeted Transfers." 2015 National Bureau of Economic Research Working Paper No. 21717.

Ashraf, Nava, Dean Karlan, and Wesley Yin. 2006. "Female Empowerment: Impact of a Commitment Savings Product in the Philippines." *World Development*, 38(3): 333-344. doi:10.1016/j.worlddev.2009.05.010

Babbitt, Laura, Drusilla Brown, Nimah Mazaheri, and Richard Eichenberg. "Women in Leadership Indonesia Baseline Study." 2012 Report. <https://sites.tufts.edu/laborlab/files/2016/06/WomeninLeadershipIndonesiaBaseline31December20121.pdf>

Baird, Sarah, Craig McIntosh, and Berk Özler. 2011 "Cash or Condition? Evidence from a Cash Transfer Experiment." *The Quarterly Journal of Economics* 126(4): 1709–1753. <https://doi.org/10.1093/qje/qjr032>

Baldwin, Kate Dean Karlan, Christopher Udry, and Ernest Appiah. "Does Community-Based Development Empower Citizens? Evidence from a Randomized Evaluation in Ghana." 2016 Working Paper. *Innovations for Poverty Action*.

Bandiera, Oriana, Niklas Buehren, Robin Burgess, Markus Goldstein, Selim Gulesci, Imran Rasul and Munshi Sulaiman. 2012. "Empowering Adolescent Girls: Evidence from a Randomized Control Trial in Uganda." World Bank Group. <https://elibrary.worldbank.org/doi/abs/10.1596/25529>

Bandiera, Oriana, Niklas Buehren, Markus Goldstein, Imran Rasul. "Empowering Adolescent Girls: Evidence from a Randomized Control Trial in Sierra Leone." AEA RCT Registry. December 2015. <https://www.socialscienceregistry.org/trials/300/history/6416>

Bandiera, Oriana, Niklas Buehren, Robin Burgess, Markus Goldstein, Selim Gulesci, Imran Rasul and Munshi Sulaiman. 2017. "Women's empowerment in action : evidence from a randomized control trial in Africa." World Bank Working Paper.
<http://documents.worldbank.org/curated/en/707081502348725124/Women-s-empowerment-in-action-evidence-from-a-randomized-control-trial-in-Africa>

Beaman, Lori, Raghavendra Chattopadhyay, Esther Duflo, Rohini Pande, and Petia Topalova. 2009. "Powerful Women: Does Exposure Reduce Bias?" *The Quarterly Journal of Economics* 124(4): 1497-1540. <http://hdl.handle.net/1721.1/57903>

Beasley, Elizabeth, and Elise Huillery. "Willing but Unable: Short-Term Experimental Evidence on Parent Empowerment and School Quality." 2015 Working Paper.

Björkman-Nyqvist, Martina, and Seema Jayachandran. 2017. "Mothers Care More, but Fathers Decide: Educating Parents about Child Health in Uganda." *American Economic Review* 107(5): 496-500.

Buchmann, Nina, Erica Field, Rachel Glennerster, Shahana Nazneen, Svetlana Pimkina, and Iman Sen. "Power vs Money: Alternative Approaches to Reducing Child Marriage in Bangladesh, a Randomized Control Trial." 2017 Working Paper, .

Casey, Katherine, Rachel Glennerster, and Edward Miguel. 2012. "Reshaping Institutions: Evidence on Aid Impacts Using a Preanalysis Plan." *The Quarterly Journal of Economics* 127 (4): 1755-1812. <https://doi.org/10.1093/qje/qje027>.

Drexler, Alejandro, Greg Fischer, and Antoinette Schoar. 2014. "Keeping It Simple: Financial Literacy and Rules of Thumb." *American Economic Journal: Applied Economics*, 6 (2): 1-31.DOI: 10.1257/app.6.2.1

Doyle, Kate, Ruti G. Levitov, Gary Barker, Gautam G. Bastian, Jeffrey B. Bingenheimer, Shamsi Kazimbaya, Anicet Nzabonimpa, Julie Pulerwitz, Felix Sayinzoga, Vandana Sharma, and Dominick Shattuck. 2018. "Gender-transformative Bandebereho couples' intervention to promote male engagement in reproductive and maternal health and violence prevention in Rwanda: Findings from a randomized controlled trial." PLOS ONE 13(4): e0192756. <https://doi.org/10.1371/journal.pone.0192756>

Duflo, Esther, Pascaline Dupas, and Michael Kremer. "The Impact of Free Secondary Education: Experimental Evidence from Ghana." 2017 Working Paper.

Dupas, Pascaline, Elise Huillery, and Juliette Seban. 2018. "Risk Information, Risk Salience, and Adolescent Sexual Behavior: Experimental Evidence from Cameroon." *Journal of Economic Behavior & Organization* 145(C): 151-175.

Drydyk, Jay. 2008. "Durable Empowerment," *Journal of Global Ethics* 4(3): 231-45. DOI: 10.180/17449620802496354

Field, Erica, Seema Jayachandran, Rohini Pande, and Natalia Rigol. 2016. "Friendship at Work: Can Peer Effects Catalyze Female Entrepreneurship?," *American Economic Journal: Economic Policy* 8(2): 125-53. DOI: 10.1257/pol.20140215

Fischer, Greg, Dean Karlan, and Meredith Startz. "Returns to Consulting for Women Entrepreneurs." Ongoing study. *Innovations for Poverty Action*.

Folbre, Nancy. "Developing Care: Recent Research on the Care Economy and Economic Development." 2018. <https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/57142/IDL-57142.pdf?sequence=2&isAllowed=y>

George, Christine Marie, Alexander van Geen, Vesna Slavkovich, Ashit Singha, Diane Levy, Tariqul Islam, Kazi Matin Ahmed, Joyce Moon-Howard, Alessandro Tarozzi, Xinhua Liu, Pam Factor-Litvak, and Joseph Graziano. 2012. "A cluster-based randomized controlled trial promoting community participation in arsenic mitigation efforts in Bangladesh." *Environmental Health* 11(41). <https://doi.org/10.1186/1476-069X-11-41>.

Glennerster, Rachel, Claire Walsh, Lucia Diaz-Martin. 2018. "A Practical Guide to Measuring Women's and Girls' Empowerment in Impact Evaluations." *Abdul Latif Jameel Poverty Action Lab Report*.

Ibarraran, Pablo, Laura Ripani, Bibiana Taboada, Juan Miguel Villa, Brigida Garcia. "Life Skills, Employability and Training for Disadvantaged Youth: Evidence from a Randomized Evaluation Design." 2012 Inter-American Development Bank Working Paper.

Jensen, Robert. 2012. "Do Labor Market Opportunities Affect Young Women's Work and Family Decisions? Experimental Evidence from India." *The Quarterly Journal of Economics* 127: 753-792.

Kabeer, Naila. 1999. "Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment." *Development and Change*, 30 (3): 435-464, Abstract. <https://doi.org/10.1111/1467-7660.0012>

Laszlo, Sonia, Grantham, Kate, Oskay, Ecem, and Zhang, Tingting. 2017. "Grappling with the Challenges of Measuring Women's Economic Empowerment." <http://grow.research.mcgill.ca/publications/working-papers/gwp-2017-12.pdf>

Lopez-Peña, Paula, Md. Kamruzzaman Mozumder, Atonu Rabbani, and Christopher Woodruff. 2016. "Worker Well-Being and Productivity in the Bangladesh Garment Sector." AEA RCT Registry. <https://www.socialscisceregistry.org/trials/738/history/7330>.

Macchiavello, Rocco, Andreas Menzel, Atonu Rabbani, and Christopher Woodruff. "Challenges of Change: An Experiment Training Women to Manage in the Bangladeshi Garment Sector." 2015 Working Paper.

Markus, Hazel Rose and Shinobu Kitayama. 1991. "Culture and the Self: Implications for Cognition, Emotion, and Motivation." *Psychological Review*. 98(2): 224-253.

<https://web.stanford.edu/~hazelm/publications/1991%20Markus%20Kitayama%20Culture%20and%20the%20self.pdf>

Melesse, Martha and O'Neill, Mary. "Policy Brief: Growth and Economic Opportunities for Women- Who Cares?" 2018. <https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/56948/IDL-56948.pdf?sequence=5&isAllowed=y>

Nanda, Priya, Abhishek Gautam, Priya Das, Aditi Vyas, Apala Guhathakurta, and Nitin Datta. 2017. "Shaping Futures: Planning Ahead for Girls' Empowerment and Employability. An evaluation study of a school-based girls' gender integrated skills program in Delhi, India." International Center for Research on Women Report. <https://www.icrw.org/wp-content/uploads/2017/02/Shaping-Futures-PAGE-Evaluation-Report.pdf>

Shah, Anuj K, Sendhil Mullainathan, and Eldar Shafir. 2012. "Some Consequences of Having Too Little." *Science* 338 (6107): 682-685. <http://science.sciencemag.org/content/338/6107/682.abstract>.

Uckat, Hannah and Christopher Woodruff. 2017. "Work-progression and Productivity Toolkit: Increasing Work-advancement Opportunities for Female Workers and Improving Productivity in Bangladesh's Garment Industry." AEA RCT Registry. December 20. <https://www.socialscienceregistry.org/trials/1843/history/24242>

Walton, Gregory M. 2014. "The New Science of Wise Psychological Interventions." *Current Directions in Psychological Science* 23(1): 73–82. DOI: 10.1177/0963721413512856