

**Building Agriculture Leaders: LEGO® Serious Play® for Adult Leadership Development**

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### **Introduction**

It is no secret that adults learn differently from their younger counterparts (Knowles et al., 2015). Given the assumptions of learner self-concept, prior experience, readiness to learn, orientation to learning, motivation, and the need to know, the diverse learning needs of adults must be addressed (Knowles et al., 2015; McCauley et al., 2017). Adult leadership development is highly personal, drawing on individual experiences, motivations, and the perceived usefulness of the material. Because of its deeply personal nature, the inclusion of prior experiences and other andragogical principles becomes critical when crafting leadership learning sessions (McCauley et al., 2017). Experiential learning is one method through which adults can engage in leadership development, with a cycle of observation and personal reflection serving as a platform for successful instruction (Dewey, 1933; Kolb, 1984).

Play is a high form of experiential learning that continues throughout adult life (Kolb & Kolb, 2017). It allows learners to control their learning, express themselves creatively, and value both process and outcome (Huizinga, 1950; Henricks, 2008; Kolb & Kolb, 2017). Though often linked to childhood, play supports leadership skill development and lifelong learning (Kark, 2011). One corporate example is LEGO® Serious Play® (LSP®), where participants use LEGO® bricks to create visual or metaphorical representations of learning (Fearne, 2020). Despite its effectiveness, little research exists on play in adult learning, especially in non-formal agricultural leadership. This study explored LSP® as a play-based method for adult leadership learning in agriculture. It aimed to assess LSP® as a culturally responsive teaching approach. The guiding objective was: Describe LSP® as a culturally responsive, play-based teaching method for adult agricultural leadership development in California.

### **Theoretical Framework**

This study used the Motivational Framework for Culturally Responsive Teaching (Ginsberg & Wlodkowski, 2009), which outlines four components for building a shared learning culture. Inclusion emphasizes learner connection; attitude involves offering meaningful choices; meaning focuses on value-aligned challenges; and competence highlights application. As leadership centers on understanding human experience (Rosch et al., 2023) and adult learners bring diverse backgrounds to the classroom (Knowles et al., 2015), this framework fits well for examining play-based methods in adult leadership learning.

### **Methodology**

This quantitative study sought to describe LSP® as a culturally responsive, play-based teaching method for adult agricultural leadership development. Participants ( $N = 21$ ) consisted of staff and members of the executive board of the California Agricultural Leadership Foundation (CALF), who were recruited from two Strengthscope®-focused workshops where LSP® was used to debrief. Seven participants identified as male, five identified as female, and one did not report gender. They ranged between the ages of 33 and 76 years old. Before the 1.5-hour workshop, participants completed the Strengthscope® assessment. In the workshop, participants built models of their strengths profiles with LEGO® bricks and reflected as a group.

After the workshop, participants received a Qualtrics link to complete an instrument based on the Motivational Framework for Culturally Responsive Teaching (Ginsberg & Wlodkowski, 2009), which included five items per construct; *Inclusion*, *Attitude*, *Meaning*, and

*Competence.* There were also three general learning impact items, all rated on a five-point Likert-type scale (Likert, 1932). Reliability for composite scores was strong, with alphas ranging from .94 to .97 (Cronbach, 1951). All survey items will be included in the final poster. Data were analyzed to generate descriptive statistics for each construct and the general item group. Response rate was 62% ( $n = 13$ ). Although response rates were modest, these findings contribute to the growing body of adult agricultural leadership education literature (Johnson & Shoulders, 2017). Non-response bias was addressed via a comparison of early and late respondents via independent samples  $t$ -tests, finding no significant differences (Lindner et al., 2001).

### Results and Findings

This study sought to describe LSP® as a culturally responsive teaching method for adult leadership development. General learning impact had a mean rating of 3.85 ( $SD = .88$ ). Competence was the highest rated component ( $M = 4.13$ ,  $SD = .61$ ), followed by attitude ( $M = 3.88$ ,  $SD = .86$ ), meaning ( $M = 3.85$ ,  $SD = .87$ ), and inclusion ( $M = 3.75$ ,  $SD = .88$ ) (Table 1). Please note, not all participants completed each instrument item.

**Table 1**

*Description of LSP® as Culturally Responsive Teaching Method for Adult Agricultural Leadership Development*

Component <sup>a</sup>	Min	Max	$M$	$SD$
Competence ( $n = 10$ )	3.24	5.00	4.13	.61
Attitude ( $n = 13$ )	1.98	5.00	3.88	.86
Meaning ( $n = 11$ )	1.76	4.80	3.85	.87
Inclusion ( $n = 13$ )	1.58	5.00	3.75	.88

*Note.* <sup>a</sup>Scaled items rated from 1 “strongly disagree” to 5 “strongly agree”

### Conclusions

Using LSP® as a play-based leadership method for adults in agriculture appeared to support general learning and contribute to learner competence, as participants perceived the session as authentic to real-world experience, supporting culturally responsive teaching. Attitude, meaning, and inclusion appeared to be less-regarded in these adult-centered sessions. These results support previous play-focused literature reporting play as a meaningful teaching tool (Henricks, 2008; Huizinga, 1950; Kolb & Kolb, 2017). Additionally, the variation in participant roles anecdotally supports Kark’s (2011) idea that play is useful for lifelong leadership learning.

### Implications/Recommendations

Findings suggest LSP® supports authentic, competence-based learning but highlights areas needing improvement to fully align with culturally responsive teaching. Practitioners should enhance inclusion, learner attitude, and challenge in LSP® sessions. Training in culturally responsive facilitation and LSP® methods can improve session impact. Incorporating journaling prompts, photo elicitation, or reflection tools may deepen learner intentionality and engagement in play-based leadership development. Future studies should include more diverse participants and specify roles and career phases to examine LSP®’s impact across contexts. Larger samples would support instrument validation. Qualitative data may explain lower ratings in inclusion, attitude, and meaning. Longitudinal research could explore LSP®’s effect on leadership behavior, retention, and learning transfer.

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