

**Summary of Data from Women Take Flight®
The Research Base for the Leaders Take Flight™ For Women Workshop
Linda Fritsche Castner M.S.
Sue P. Stafford Ph.D**

Executive Summary

Seven-year research project conducted in three phases

Phase One: Interviews

Question: Why don't more women learn to fly?

Over 100 female pilots interviewed

Hundreds of non-pilots interviewed

Most women who become pilots do so because of a strong emotional connection with a male

Phase Two: Early Women Take Flight® Workshops

Four 2-day workshops held

21 participants

100 % of the women reported feeling empowered by the experience of learning to fly

Phase Three: Women Take Flight® Workshops in Research Mode

Three 2-day workshops held

36 participants

98% reported an increase in self-confidence

91% demonstrated an improved ability to adapt to conditions that required new learning

81% came to new understandings concerning the role and value of collaboration in tackling a difficult and risky task

Leaders Take Flight™for Women

New workshop targets 3 key leadership traits

Confidence

Adaptability

Collaboration

Flying activities have been tailored for the business context

Discussions focus specifically on the three traits in work settings

Flight is explored as a metaphor for the workplace

Experiential curriculum provides benefits for the business of developing leaders and for General Aviation as a business

**Summary of Data from Women Take Flight ®
The Research Base for the Leaders Take Flight™ For Women Workshop
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The curriculum of the Leaders Take Flight™ workshop for women is built on a foundation of research results spanning seven years. The research was conducted in three phases of increasing rigor.

Phase One: Interviews

In 1998 Linda Castner, a pilot and co-owner of Alexandria Field in Pittstown N.J., set out to answer the question “why don’t more women learn to fly?” She conducted formal interviews with over 100 female pilots, and informal interviews with hundreds more women – non-pilots – who visited her airport, dropping off children and husbands for flight lessons. The formal interviews were audio-recorded and transcribed. Castner’s interviews reveal two things. First, the majority of those women who do become pilots do so as a result of a strong emotional connection with a male: father, husband, or significant other. It is the rare woman who takes to flying on her own initiative. Second, women who don’t fly appear to be more than just disinterested; they are fearful of it. Offer them a free flight, or ride in the back seat as their child took a lesson, and they would flee to the far end of the parking lot.

Phase Two: Early Women Take Flight® Workshops

Knowing that the flying experience had a positive value for her and that others held her in high regard because of her status as a female pilot, Castner wanted other women to be able to experience the power of flight. Assisted by a New Jersey Aviation Education Grant, she designed a two-day workshop geared toward leading women on a path of self-discovery. She used the flying experience as a vehicle. By learning to fly in a controlled environment, she postulated, women will discover their strengths and be empowered. The workshop was offered four times to a total of 21 women between May 2001 and November 2002. The results were overwhelmingly positive. 100 % of the women reported feeling empowered by the experience of learning to fly. A comment typical of those made by a majority of participants was that the workshop had been a catalyst for “realizing how powerful doing physical activity with risk can impact your confidence level.” This participant “liked flying and knowing that [she] was (and can be) in control.”

Phase Three: Women Take Flight® Workshops in Research Mode

The informal research results convinced Castner that the workshop experience was valuable, especially to women who had little or no interest in flying. She next set herself the task of conducting a more formal research study using the workshop. She found a

research partner, Dr. Sue Stafford from Simmons College in Boston. Sue is a pilot and the wife of a pilot. She was also interested in the education of women; the undergraduate program at Simmons College is for women only. Intrigued by Linda's preliminary results, Sue agreed to join Linda as part of a research team.

The two re-worked the Women Take Flight® workshop as a research project and were awarded a grant from the Wolf Aviation Fund to support their research. Between October 2003 and November 2004 they ran three workshops in research mode: one at Simmons College in Boston, a second at Mercer County Community College in Trenton, NJ, and a third at Western Air Flight Academy in Broomfield, Colorado. There were twelve participants in each workshop, for a total of 36 subjects in all. Participants included students, faculty, administrators and business women, ranged in age from 18 to 56, and were ethnically diverse, including African Americans, Hispanics, Pakistanis, and Japanese.

The research question was carefully formulated: is there a connection between perceived risk-taking and the development of self-reliance in women? The phrase "perceived risk-taking" was used because risk is complex and one goal of the research was to learn the nature of risk as it was perceived by workshop participants. The term "self-reliance" was used because it is so bland. The goal was to insure that words were not put into the mouths of participants. If women felt empowered, they would have to offer that description without prompting.

A variety of research instruments were used: questionnaires, journals, and group discussion. Sessions were video and audio-taped so the exact words and body language of participants could be captured. One month after the workshop, a follow-up question was sent to all participants: have you done anything that you would attribute to your workshop experience? The same question was sent six months after the workshop.

The results were impressive. The immediate response of the majority of participants was elation, and a rush to communicate the experience to family, friends and co-workers. This was a workshop experience to be celebrated! Longer term, the real impact of the workshop experience was demonstrated. 98% of the participants – 35 out of 36 – reported an increase in self-confidence. They expressed this result in their own words – "self-confidence," "self respect," self esteem," and "empowerment." As one participant put it, "I can always draw on this experience as a reference that I can accomplish things that I may feel are far outside the normal boundaries." Another participant spontaneously reported that the workshop continued to "always be there" – and this was 1 1/2 years after she attended the workshop! She related that when she found herself in a challenging work situation, she would just say to herself: "If I can fly and airplane, I can do anything!"

Another significant finding had to do with the nature of perceived risk. While many participants reported perceiving some physical risk – the risk of dying in a crash – psychological and social/cultural risk proved to be more important factors. Fear of "being too stupid" and "feeling foolish" was reported by a significant number of

participants. After flying during the workshop, most participants reported that their sense of perceived risk had diminished, and they expressed a more positive attitude toward airplanes and flying.

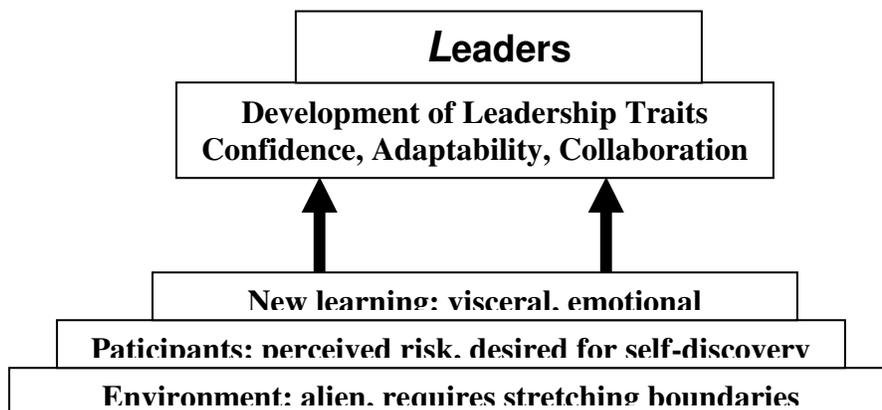
Finally, the research suggested that the strong emotional response of the participants to the new learning environment played an important role in cementing the lessons learned.

Leaders Take Flight™ for Women

In reviewing their research results, Castner and Stafford came to the realization that the workshop also led participants to develop three leadership traits. The first is self-confidence – the ability to enter unfamiliar terrain and take action. With 98% of participants reporting an increase in this leadership trait, the workshop was clearly a powerful tool for leadership training. Second, 91% of participants demonstrated an improved ability to adapt to conditions that required new learning. One participant remarked that she would “be more willing to take chances in [her] career” after taking the workshop. Third, 81% of participants came to new understandings concerning the role and value of collaboration in tackling a difficult and perceived risky task. One participant, feeling fulfilled and exhausted by the first day’s activities, shared her reluctance to attend on the second day of the workshop. “But,” she related, “knowing that if I hadn’t shown up I’d have affected 11 other people made an impact on me in a huge way.” She showed up, worked with the group, and had a successful second flight.

It is noteworthy that these percentages reflect spontaneous and unsolicited responses. Participants were asked specifically about how the workshop affected their sense of self-reliance (most reported being quite self-reliant at the start of the workshop!), but were not asked specifically about the three leadership traits. Their responses showed that the three key leadership traits were, in fact, developed as a result of the workshop experience. In addition, all participants reported an improved perception of the risks and rewards of flying in small airplanes.

This led the researchers to develop the following model:



Their research suggests that (1) if you provide an environment that is alien – as the cockpit of a small airplane surely is – and that requires the stretching of normal boundaries, and (2) if into that environment you introduce participants who perceive it as risky (in either the physical, psychological, or social/cultural sense) and who have a desire for self-discovery, and (3) if you provide an opportunity for new learning that has a strong visceral and emotional component, the result will be the development of three key leadership traits: confidence, adaptability, and collaboration.

Having identified confidence, adaptability, and collaboration as key leadership traits that are developed by the workshop experience, the two researchers re-designed the workshop to focus on these traits. In the new workshop, the flying activities have been tailored for the business context, and the discussions focus specifically on the three traits in work settings. Flight is explored as a metaphor for the workplace. For example, having experienced thrust and drag in the airplane, participants are encouraged to consider who or what functions as thrust and drag in the workplace and how to use thrust to counteract drag. Having experienced being Pilot in Command of the airplane, and also having been “along for the ride” in the back seat as their partner flew, participants are guided to consider the powers and pitfalls of each function. Finally, the metaphors are used to link the flying experience directly to the three leadership traits.

Given the impressive results of the Women Take Flight® workshop, Castner and Stafford have good reason to believe that the Leaders Take Flight™ workshop will be even more significant for participants, both women and men. By focusing directly on confidence, adaptability, and collaboration, the experiential curriculum will provide benefits for the business of developing leaders and for General Aviation as a business.

Leadership Development

- Courage – According to many experts courage is leadership’s essential ingredient. We believe it is difficult to know courage if you have not practiced stretching self-imposed limits. The Women Take Flight® research workshops and the Leaders Take Flight™ workshop allow participants to stretch their limits and come away saying, “if I can fly an airplane, I can do anything.”

General Aviation

- Perception Change – That little airport down the street and those little airplanes that used to be recognized only when they fell out of the sky will be perceived to have greater value to the community.
- A New First Flight Opportunity – As a matter of course content, participants unknowingly are educated about the process of learning to fly whether they ever had a desire to learn or not.

- Media Coverage – The workshop occasion offers a new lens for the press – one inspired by pleasant images, people learning and interacting with small aircraft.
- Insurance Industry Norms – The rewards gained from a Leaders Take Flight™ program will counteract the current phobia corporations have about allowing their employees to fly in small aircraft.