**THE GOAL**

The goal of this project is to design pointe shoes that offer better ergonomics, aesthetics, and convenience than conventional pointe shoes.

**THE PROCEDURE**

The project is divided into four main phases:

**Phase 1: Understanding / Observation**

- Understand the anatomy of human feet.
- Observe ballerinas in action and while choosing, putting on, and wearing pointe shoes.
- Observe how manufacturing companies make pointe shoes and how they fit.

**Phase 2: Concept generation**

- Sketch pointe shoe concepts that address the problems identified in Phase 1.
- Analyze concepts to determine feasibility and attractiveness.
- Select one or more concepts to be developed in the next phase.

**Phase 3: Concept development (simplified by academia)**

- Develop prototypes of selected concepts. Consider modifying existing pointe shoes.
- Test early prototypes to investigate performance, comfort, and safety. Methods will depend on availability of suitable equipment and laboratory.

**Phase 4: Concept refinement (Beyond the scope of this project due to resources required)**

- Before wearing concept into final prototypes.
- Test prototypes with dancers.
- Refine prototype design.

**THE CURRENT POINTE SHOE**

In the early 1800s, Marie Taglioni broke all previous barriers of ballet by being the first ballerina to dance on her toes. Today, as ballerinas demand more comfort and support, the evolution of the pointe shoe continues to occur.

The old pointe shoes were made of leather and paper and were uncomfortable. The shoes were made from cardboard and were not designed to provide the necessary support. The shoes were not designed to fit the dancer's foot. The new shoes are made of leather and paper and are designed to provide the necessary support.

**GETTING TO THE Pointe**

Development of innovative pointe shoes

Lina A. Colucci

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