OBJECTIVES

1. To critically review the theory and practices of self-help approach in housing.
2. To study the principles of Segal method and its potential as an alternative to home ownership in Malaysia.
3. To determine the extent of acceptance and identify issues on the concept of self-build houses in selected rural areas of Malaysia.
4. To develop and construct prototype using prefabricated system for self-build housing.
5. To evaluate the perception of end-users on the prefabricated system.

PROCEDURES

1. Literature review, which covers self-help housing and national housing program (past and current). Specific reference made on Segal approach for its similarities in construction and self-build housing program.
2. The surveys:
   1. Pilot Study (20 respondents)
   2. Interview survey (5 authorities)
   3. Main survey (501 respondents)
3. Manufacture prototype of prefabricated timber
4. Field testing with end-users (4 groups consisted of 7-8 per group)

ANALYSIS

1. Comparison case studies on self-help housing across the world and technology approaches that have been used. Identify principles of Segal that can be part of the system develop for local self-build program.
2. Descriptive analysis
3. Mean comparison
4. F-test
5. Chi-square test
6. Factor analysis (KMO)
7. Kolmogorov-Smirnov test
8. Kruskal-Wallis test
9. Choosing details and structures suitable for rapid assembly
10. Assembly of complete modular unit of a space
11. Evaluation of the self-build system

RESULTS

The findings include:
1. Underlying concept of self-help housing
2. Technology of self-build houses
3. Segal versus Malay traditional houses
4. Preferences of adopting self-build housing and construction materials that are liked most

Figure 3.3: Flow Chart Showing the Methodological Framework of the Research