TRANSFORMING TRADITIONAL MALAYSIAN SONGKET INTO CONTEMPORARY SONGKET FOR BROADER APPAREL USAGE

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by

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TRANSFORMASI TENUNAN SONGKET TRADISIONAL MALAYSIA KEPADA SONGKET KONTEMPORARI UNTUK KEGUNAAN PEMAKAIAN YANG MELUAS

ABSTRAK

Industri songket Malaysia kini mengalami persaingan yang sengit daripada pengeluaran songket yang dihasilkan secara besar-besaran menggunakan mesin. Oleh yang demikian, songket tradisional Malaysia perlu diubahsuaikan menjadi suatu hasil tenunan yang inovatif untuk kegunaan pemakaian yang lebih meluas. Sejurus itu, suatu kajian tentang bahan tenunan dan proses penghasilan perlu dilakukan untuk membantu industri ini bersaing dan memperluasakan penggunaan songket melalui penghasilan songket kontemporari yang ringan dan berpotensi. Ini boleh dilaksanakan melalui gabungan sains dan kreativiti, tanpa mengabaikan keaslian nilai-nilai estetika dan keunikan yang telah sedia ada pada songket.

Pada dasarnya, penyelidikan yang telah dijalankan melibatkan lima fasa utama iaitu (i) sorotan kajian dan penajaan, (ii) kajian kes, (iii), eksperimen penyelidikan dan perkembangan, (iv), temuduga, dan akhir sekali (v), dapatkan kajian dan kesimpulan.

Pelbagai kombinasi tenunan telah digunakan dalam penghasilan songket yang ringan, iaitu sutera filament yang belum dinyahgam, yarn sutera pilin tinggi, kapas dan yarn logam. Kek songket dan motif tradisional turut digunapakai dalam kesemua kajian kes yang dijalankan. Teknik Shibori dan Devoré berserta proses pemerceran dan nyahgam kemudiannya diaplikasikan ke atas tenunan songket ringan yang dihasilkan daripada kombinasi tersebut. Eksperimen yang dijalankan ini telah menambah nilai dan memperkayakan tekstur serta dimensi fabrik songket tradisional. Hasil yang diperolehi dari usaha ini akan membantu memperingkatkan pengeluaran songket ringan yang lebih kontemporari dan berkualiti untuk kegunaan pemakaian yang lebih meluas.
TRANSFORMING TRADITIONAL MALAYSIAN SONGKET INTO CONTEMPORARY SONGKET FOR BROADER APPAREL USAGE

ABSTRACT

Today, the Malaysian songket weaving industry faces stiff competition from the machine mass-produced songket. As such, there is a need to transform the existing traditional Malaysian songket into an innovative product for broader apparel usage. Therefore, it is appropriate and timely that a research on weaving materials and textile production process be carried out in order to assist the songket cottage industry to remain competitive and to broaden its usage by creating the potentially viable contemporary lightweight songket. This can be achieved by incorporating science and creativity in the production of contemporary songket without sacrificing the songket original aesthetic and uniqueness.

In essence, the researcher has undergone 5 stages of research methods. They are (i) literature review and sponsorship, (ii) case studies, (iii) research and development experiments, (iv) conducting interviews and finally (v) findings and conclusions. A total of five comparative case studies have been executed. Three case studies were executed in Kuala Terengganu, Terengganu while the remaining case studies were carried out in Kuching, Sarawak. The set-up and skill levels of the songket weavers involved in the case studies vary from one another. In order to achieve the objectives of the research, theory of adult learning is applied when working with weavers to create the light-weight songket.
Different combinations of un-degummed filament silk, high twists silk, cotton and metallic yarns have been used to weave the light-weight *songket*. The traditional *songket* loom and motifs are utilised throughout the five case studies. Shibori and Devoré techniques as well as mercerisation and degumming processes are then applied to the light-weight *songket* that have been woven earlier. The experiments carried out would value-add and further enhance the textures and dimensions of the *songket* fabrics. This effort has resulted in the successful production of contemporary light-weight *songket* with good draping qualities suitable for broader apparel usage.
1.0 Introduction

*Songket* is a beautiful piece of traditional Malay fabric woven in silk or cotton yarns, using metallic threads to form *songket* motifs. By employing the supplementary weft technique, the *songket* motifs are created using the traditional *menyongket* (a Malay word meaning to embroider) technique where the metallic threads are embroidered and woven into the cloth. *Songket* weaving is a laborious and tedious process that requires a great deal of concentration from the weaver. A beautifully woven *songket* fabric would exhibit master craftsmanship and skills’ of the weaver.

Historically, *songket* is worn by royalty and their families. However today, it is mostly worn as traditional Malay ceremonial costumes during royal installations, weddings, birth of a child and circumcision ceremonies, Malay festive occasions and formal state functions. Recently, *songket* have also been transformed into apparel, fashion accessories such as handbags as well as home products such as place mats, cushions, table runners and gift items. The use of *songket* to decorate the cuff and collar of Malaysia Airlines (MAS) air steward’s jacket is an example of incorporating *songket* into apparel.

Traditional *songket* is usually made in a single dark colour, often red. Today, with more variety of colours made available from synthetic dyes, weavers have been more daring in experimenting with colours for their *songket*
pieces. Pastel colours such as pink, light blue and lavender are very popular with the younger generation of consumers.

As in the past, cotton and spun silk threads are still very popular in the songket industry today. Polyester threads have also gained popularity because they are cheaper compared to silk and cotton. They are also available in many colours. Besides the traditional gold and silver yarns used for songket weaving, colourful metallic threads such as red, blue and green, amongst others have been gaining popularity in recent years.

Although songket weaving is still being practised in Malaysia today, the numbers of songket weavers have dwindled over recent years. Most songket weavers are women who have learnt their weaving skills from their more experienced elders. Most songket weavers can be found in Malaysia, namely the states of Terengganu, Kelantan and Pahang in Peninsula Malaysia as well as Sarawak in East Malaysia. The weaving is mainly done in Malay villages (kampongs) or at handicraft centres. In Terengganu, if the weavers weave from their own homes, the loom is usually placed either on the verandah, in their homes or under their houses as most Malay houses are built on stilts.

According to Fisk (1959), the modifications that had been done to weaving since the last twenty to thirty years were mainly on the technique of dyeing and production. However, there was not any change made to the weaving equipment and weaving technique for more than a century.
1.1 Recent Development on Songket Weaving at the Malaysian Handicraft Development Corporation Kuala Terengganu Centre

With the establishment of the Malaysian Handicraft Development Corporation (MHDC), many workshops and exhibitions to promote the traditional Malaysian textiles especially in areas of batik and songket have been organised, which augurs well for the development of traditional crafts in our society today.

The MHDC has set up National Craft Institute [Institut Kraf Negara (IKN)] at Rawang, Selangor. The objective of IKN is to teach the art of making traditional Malaysian handicrafts including songket weaving to the younger generation, besides offering educational certificates and diploma courses related to traditional Malaysian handicrafts.

The MHDC Craft Innovation Centre Malaysia (Pusat Innovasi Kraf Tenunan Malaysia) at Chendering, Kuala Terengganu was officiated on the 18th of April 2005. The objectives of the centre are to carry out research and develop Malaysian songket to compete with international textiles products, besides providing training to those who are interested to learn songket weaving and related weaving services (e.g. yarn dyeing) to weavers. The centre also serves as a reference point for weavers to obtain the latest information on weaving innovations and the industry. Plate No. 1.1 illustrates Encik Azman Bin Awing, an officer from the Marang prison learning songket weaving at the MHDC Craft Innovation centre. Upon acquiring the skills of songket weaving, he would subsequently teach the inmates at the Marang prison to weave songket. Plate
No. 1.2 illustrates a *songket* weaving machine developed by the centre to expedite the production of *songket* weaving.

Plate No. 1.1 An officer from the Marang Prison learning *songket* weaving at the MHDC Craft Innovation Centre, Chendering, Kuala Terengganu

Plate No. 1.2 *Songket* weaving machine developed by the MHDC Craft Innovation Centre, Kuala Terengganu
The MHDC Craft Innovation centre has two modern jacquard looms (power looms) from India but is only used for research and development. According to Encik Mohd. Nizam Bin Ismail, the technician in charge of the jacquard looms said that the jacquard looms can produce a large quantity of *songket* at a much shorter time. For example, the jacquard loom can produced a 2.5 metres length of *songket* in only 2 hours whereas if it is produced by hand, it would take at least a month or more depending on the intricacy of the design. The cost to produce a typical polyester *songket* on a jacquard loom is estimated to be RM80.00 while a handmade *songket* would cost more than RM100.00. The jacquard loom is used for mass production of *songket* for the export market without compromising its quality and at the same time, reduces the production costs. Plates No. 1.3 and No. 1.4 show the jacquard looms using the punch card system at the MHDC craft innovation centre.

Plate No. 1.3 Close-up view of the jacquard loom at MHDC Craft Innovation Centre, Kuala Terengganu
1.2 Problem Statement

Today, there are a few textile weaving factories with jacquard looms in Malaysia. Plate No. 1.5 illustrates an example of the jacquard songket products that are locally made. There are also songket traders or wholesalers that have gone to Pakistan or India to commission weaving of mass-produced songket using Malaysian songket designs but are sold at much cheaper price than those handwoven ones in Malaysia.
Plate No. 1.5 Mass-produced *songket* at a *songket* exhibition (2005) at Kraftangan, Terengganu Branch, Kuala Terengganu

According to the Director General of the Malaysian Handicraft Development Corporation (1999) in the foreword of the book entitled “A Malaysian Touch: Textiles for the New Millennium” it was mentioned that traditions will die because traditional hand-crafted textiles are not in demand today and unable to compete against mass-produced textiles. This is because the traditional hand-crafted textiles are not suitable for today’s market in terms of their design and function. As a result, stiff competition from the mass-produced *songket* has caused the traditional Malaysian *songket* unable to compete in price, quantity, and consumer-satisfaction.

Moreover, the recent move to invest in modern jacquard weaving looms in Malaysia to produce brocade fabrics imitating the style of *songket* is only beneficial for major textile producers because of their financial strength. The rate of mass production of *mechanised* weaving is much faster and cheaper. As
a result this may threaten the livelihood of the traditional *songket* weavers. Moreover, it is beyond the financial means of the traditional handloom weavers to acquire the jacquard looms. The jacquard looms are difficult to operate as formal training is needed and it is also expensive to maintain these looms. Thus, the introduction of jacquard loom is neither suitable nor viable for use in the cottage industry. These are primary factors that threaten the very survival and the sustainability of our beautiful traditional Malaysian *songket*.

Selvanayagam (1990) pointed out that *songket* weaving is very labour intensive. As such, it is not surprising that there is a scarcity of weavers. Younger generation women, whose predecessors weave *songket* for a living, are no longer interested in *songket* weaving as it is thought to be time-consuming and boring. Besides that, some weavers have stopped weaving after marriage while some have moved to the city hoping to land a better job. The rise of *songket* production costs due to price increment of silk and cotton yarns, dyes and the metallic threads have affected the demand of *songket* as well. The art of weaving *songket* may one day diminish if our younger generation is no longer interested in the weaving *songket* profession. It is crucial to find ways of educating the younger generation and to innovate the process of *songket* weaving from traditional *songket* to contemporary *songket* weaving so that more interesting *songket* products can be produced to cater for today’s market.

In addition, Hajjah Ngah a renowned *songket* weaver from Kampong Losong, Kuala Terengganu who is a fourth generation weaver in her family, has stated during her interviews with Tan Sri Dato Mubin Sheppard (1978) that it
would be difficult to change the old habits of *songket* weavers and the traditional methods of producing *songket*. Even though the quality of *songket* produced is of the highest quality, there is a need for new dedicated *songket* weavers to give the craft of *songket* weaving a new zest of life.

Hence, in order to be able to address and solve the issues and challenges faced by the current Malaysian *songket* industry, it is important to think of various approaches to value-add and innovate the Malaysian *songket* to broaden its usage to cater for today's local and international market demand. For example, the traditional use of metallic threads in *songket* render the fabric rather stiff thus causing it to be rather uncomfortable to be worn. Hence its usage is limited. It is a pity that such a beautiful and unique fabric is not popularised as quality fashion-wear that can be worn on all occasions in Malaysia. In order for *songket* to increase its usage as quality fashion fabrics and to capture a broader market base, it has to be innovated and transformed into a more comfortable *songket* as light-weight *songket* for apparel use.

Therefore, this research is focused on the teaching basic textile science to *songket* weavers and emphasizes on the potential of creating marketable, elegant *songket* for fashion. It is hoped that through this research, the craft of *songket* weaving, usage and market potential of handwoven *songket* can be further sustained and enhanced so as to create a niche market with a competitive edge over the mass-produced *songket* produced by jacquard machines.
1.3 Objectives of Study

The objectives of this research are:

i. To define the characteristics of songket.

ii. To identify which type of yarns, textile techniques and finishing processes that is suitable to be used for songket weaving.

iii. To introduce basic textile science to the songket weavers, thus enabling them to understand the physical and chemical properties of the textile fibres.

iv. To experiment weaving with contrasting yarn twists, different fibre types and thickness of yarns as well as textile techniques and finishing processes to create contemporary and innovative songket.

v. To develop a range of contemporary songket that is soft, sheer and opaque with delicate with good draping qualities suitable for apparel usage (mens and womens fashion wear) and fashion accessories (scarves/ shawls).
CHAPTER 2
METHODOLOGY

2.0 Introduction

This chapter explains in detail the aims of this research, outline of thesis, hypotheses, research questions and the various research methods which will be employed in the research. The methods used for collection of research data are mainly qualitative in nature. Quantitative research is employed when executing the research and development experiments on weaving of the light-weight songket and to change the structures and dimensions of the songket fabric during the finishing process. The scope and limitations of this research are presented as well. The findings of this research will be drawn from the data collected from primary (case studies, experiments and interviews conducted) and secondary sources (literature review).

The researcher’s background, papers presented and media interviews can be found in Appendix A, B and G, respectively.

2.1 Outline of Thesis

The outline of this thesis is as follows:

a) Chapter 2 highlights the research methods of executing the research. The hypotheses, research questions, scope and limitations of the research are explained in detail in this chapter.
b) Chapter 3 reviews literature solely on *songket* with emphasis on the definition and history of *songket*, the traditional *songket Kek* (loom), motifs, patterns and design structure of traditional *songket* and past *songket* research studies.

c) Chapter 4 reviews literature that emphasises the principles of adult learning by Knowles, the principles of textiles and innovative textiles produced by renowned textiles designers. The definition of the term “Technology” is also clarified in this chapter.

d) Chapter 5 explains the five case studies that have been carried out. This chapter also discusses the differences of *songket* weaving process in Terengganu and Sarawak.

e) Chapter 6 highlights the experiments and procedures undertaken at a workshop to change the structure and dimensions of the *songket* fabric that have been woven by the weavers from the five case studies. The Shibori, Devoré and fabric dyeing (using synthetic and natural dyes) techniques as well as degumming and mercerisation processes are explained in detail in this chapter.

f) Chapter 7 discusses the interviews with renowned Malaysian *songket* producers from Terengganu and fashion designers from Kuala Lumpur regarding the research and the light-weight *songket* that have been produced.
g) Chapter 8 concludes the findings of the present study and highlights the recommendations for future research on *songket* weaving.

### 2.2 Aims of Research

It is believed that production of value-added *songket* and broadening the usage of handwoven *songket* is important in competing with the mass produced *songket*. Therefore, the two primary aims of this research are mainly focused on:

- **Education**: educating *songket* weavers with basic textile science, introducing other types of yarns that can be woven on a traditional *songket* loom and applying other textile techniques that can be used on the contemporary *songket* fabric to further enhance the textures and dimensions. This would enable *songket* weavers to produce innovative *songket* fabrics using their traditional *songket* looms. This aim is related to the objectives of study no (i), (ii) and (iii) as outlined in page 10.

- **Innovation**: create value-added contemporary *songket* that can be comfortably worn as fashion apparels. It should be noted that reducing the production time and cost of *songket* are not the focus of this research. This aim is related to the objectives of study no (iv) and (v) as outlined in page 10.
2.3 Hypotheses and Research Questions

In order to be competitive in the local and export textile craft market, there is a need for the Malaysian craft industry to shift to higher value-added products. The manipulation and exploitation of the relationships between textile design, textile science, production processes and transition of technology from theory to practice, are important factors in research and development which can lead to innovation of contemporary handwoven songket without significantly affecting the cost production.

Despite the threat posed by the mass-produced songket, it is strongly believes that the traditional songket weavers can continue to sustain, co-exist and compete successfully with the mass-produced songket if the songket design can be improved to cater to the taste and demand of today’s fashion conscious consumers. This new range of contemporary handwoven songket should be comfortable, has good draping qualities and can be worn on all formal occasions, thus having the potential of capturing a broader apparel market.

The idea of adding more dimensions and turning songket into exclusive fashion-wear for formal occasions is mainly inspired by the Nuno textiles created by the NUNO CORPORATION and textile practitioners from Japan. By fusing science and technology into the Japanese traditional textiles, the NUNO Corporation has successfully created a range of innovative textiles. Although most of the fabrics are produced by the mechanised looms, it is believed that
the concept of fusing traditional craft and textile industrial processes can be applied to *songket* weaving.

In order to apply such concept into traditional handwoven *songket*, traditional weavers have to be made aware of the importance of acquiring the knowledge and technical know-how in textile science and other textile techniques such as Shibori and Devoré. However, with the absence or rather lack of scientific and technical knowledge in specialised areas such as fibre, dyestuff, chemical treatment on fabrics and textile printing, the effort of traditional weavers in developing new contemporary and innovative handwoven *songket* from its original form for use by modern-day society to cater for a broader market, can be hindered.

Apart from being artistic and creative, the understanding and knowledge of textile science are perhaps the most fundamental knowledge that a textile practitioner (weaver, printer or knitter) must have or acquire. Acquiring basic knowledge in textile science will enable *songket* weavers to understand better the construction of textiles, suitability and effectiveness of the type of chemicals and dyestuffs on specific fibre type.

By acquiring basic knowledge in textile science, *songket* weavers would be able to manipulate and exploit the relationship between textile design and science from initial conceptual design stage to practical application of producing quality and innovative *songket*. This can further lead to the production of
contemporary and innovative songket with higher and improved quality, particularly in terms of aesthetics and colourfastness.

This new range of exclusive and contemporary handwoven songket is not only unique, but would also be difficult to be reproduced or imitated by textile manufacturers since these textiles are handmade. The new range of handwoven songket would be comfortable, drapable, can be worn at various formal occasions and can also be used for home-furnishing. This will increase the possibility of capturing a broader apparel and home-furnishing market.

The research questions for this research are:

i. To what extent can different types of yarns, innovative textile techniques and finishing processes be adopted in traditional songket weaving production?

ii. To what extent can the introduction of new knowledge and skills in songket production be accepted by the traditional songket weavers?

2.4 Research Methods

The data collection from the primary and secondary sources will form the basis of this research. The methods of investigation used to obtain the primary source of data for the research include case studies and interviews whereas the secondary data is collected through literature review. Basically 5 distinct stages are necessary to execute the research. The research methodology is shown in Figure No. 2.1.
2.4.1 Literature Review

The first stage of this research will be conducted through secondary data collection. Secondary data is obtained from reviewing literature related to theory of adult learning, textile science, textile dyeing, jacquard weaving and *songket* weaving. The history, motifs and patterns of *songket* and the process of making *songket* weaving are reviewed before the research is carried out.

So far there are only few texts written on *songket* weaving and they are mainly focused on its history, *songket* loom, motifs and patterns of *songket* and the process of *songket* weaving. The ‘Malaysian Songket’ by Norwani Mohd
Nawawi, ‘Songket Malaysia’s Woven Treasure’ by Grace I. Selvanayagam, ‘Tekstil Tenunan Melayu’ (Malay Textile Weaving) and ‘Rekabentuk Kraftangan Melayu Tradisi’ (Traditional Malay Handicraft Design) by Siti Zainon Ismail are few good texts written on songket weaving and the industry. Texts on textiles from Southeast Asia and historical texts on textile weaving in the Malay Peninsula have also been reviewed to examine the origins of songket weaving as described in detail in Chapter 3.

Texts on teaching methods on adult learning, creativity, motivation and contemporary textiles which will be discussed in Chapter 4, have also been reviewed. The information collected from Chapter 4 will be employed while working with the songket weavers when weaving the light-weight songket which will be explained in Chapter 5. In addition, this would also include the collection of technical data on fibres (silk and cotton), yarn twists and textile techniques which will be used for the research and development experiments to create light-weight songket with dimensions. This is elaborated in Chapter 6.

### 2.4.2 Sponsorship

Since the School of Arts at the Science University of Malaysia does not have a textile workshop, yarns and materials needed for the research and development were sought for in order to produce light-weight songket.

Throughout the duration of the research, various forms of grants, research collaboration with songket weavers, equipment, yarns, dyestuffs and auxiliaries have been actively sought after. For example, during the early stage
of the research in November 2003, Jim Thompson Thai Silk Inc in Bangkok was visited to study the set up of the handloom and machine weaving factories. Jim Thompson Thai Silk Inc sponsored some silk and cotton yarns required in the research. In October 2005, two exhibitions held in Singapore were also visited. They are;

- The 2nd Asian International Exhibition of Textile Machinery (17th - 21st October 2005) held at the Singapore Expo and
- International Yarns, Fibres, Fabrics and Accessories Exhibition (18th – 21st October 2005) at Suntec City Singapore.

The objective of visiting the exhibitions is to further source for yarns, polyester heddles and yarn winding machinery relevant to the research.

The first year of the research was mostly spent on getting funding from a Foundation in Pekan, Pahang. Unfortunately, the research project did not materialise due to some unforeseen circumstances. As time is limited, the research was executed in a smaller scale. A preliminary fieldwork to Kuala Terengganu was materialised in February 2005. The objectives of this preliminary fieldwork were to (i) obtain information on the production of songket weaving in Kuala Terengganu, (ii) interview songket weavers from villages and (iii) to obtain consent from weavers to collaborate in the research. From the preliminary fieldwork, this research has managed to obtain sponsorship of yarns from Toh Chuan Bee Sdn Bhd, while Bibah Enterprise Sdn Bhd has agreed to collaborate in the research. Pn. Habibah, the owner of Bibah Enterprise Sdn. Bhd. has permitted a few of her weavers to work on the different range of contemporary light-weight songket over a period of two months.
Support and sponsorship were also obtained from various local and international companies for her research. Most of the silk, cotton and metallic yarns used in the research were sponsored by Jim Thompson Thai Silk Inc of Thailand. Apart from that, some metallic yarns were also sponsored by the Lurex Company Limited of the United Kingdom and Taiwan Meiguang Metallic Yarn Corp. Ltd., of China. Locally, Toh Chuan Bee Sdn. Bhd. sponsored some spun silk and metallic yarns. Encik Azmi Annuar (from Lane Garby Singapore) sponsored the polyester heddles.

2.4.3 Case Studies

Case studies based on participant observation, in-depth interviewing methods and through visual evidence (photographs) on the fieldwork carried out in Kuala Terengganu, Terengganu and Kuching, Sarawak are described in detail herein-after. The in-depth interviewing method employed would include both unstructured (informal interview) and semi-structured interview (focus interview).

In the participant observation method, the songket weaving process involves a joint-collaboration with the songket weavers. According to Bryman (2001), participant observation is where the researcher totally immerses himself or herself in observing the behaviour of a group and studies the people by having conversation with them and by asking questions over a period of time. Burgess (1993) further states that when a researcher enters the life of the people being studied, the researcher becomes the main instrument of the social investigation where the researcher will record the situation in order to analyse it.
In this instance, the researcher is also the reflective practitioner while she explores *songket* weaving in Kuala Terengganu and Kuching.

The estimated duration allocated to execute the fieldwork will be over a period 2 and 8 months in Kuala Terengganu and Kuching respectively. The selection of *songket* weavers with different levels of skills in *songket* weaving will depend upon the willingness of *songket* producers/weavers to collaborate in the research. During the field research, the *songket* weavers from Kuala Terengganu and Kuching will be engaged to produce the contemporary *songket* according to specifications and the selected designs. Five comparative case studies have been proposed for the research. Towards the end of the study, the five case studies would be compared with one another. The findings are presented the last chapter (Chapter 8).

For effective communication with the *songket* weavers, the Malay language would be used because most of the *songket* weavers do not speak English.

Throughout the case studies, fieldnotes will be taken and documented in the form of descriptive, analytical and self-reflective data. According to Patton (1990) cited in Miles and Hubermann (1994), while writing down the raw fieldnotes, reflective remarks expressing one’s feelings, insights and events that happened on site are noted. This method can add to the effectiveness of the written fieldnotes.
It is ideal to take down fieldnotes as soon as something happens during the course of study. However, it can be foreseen that sometimes filednotes may not be taken as soon as something happens as she will be involved in the making of *songket* with the weaver and will not be free to write. Taking fieldnotes while in conversation with the producer or weaver will also make the producer or weaver uncomfortable and self-conscious. Therefore, strategies of taking down fieldnotes need to be work out carefully.

Using a recorder to record the case studies in this research is also impossible as the recorder only records conversation and most of the time, the *songket* weaving experiment would be on-going. Making notes on a note book to record conversations and observations as well as visual evidence by taking photographs to record the *songket* weaving progress and experiments would be the appropriate equipment to be used while executing the case studies. The five case studies investigated in this research will be presented in Chapter 5.

The objectives of this stage two of research as shown in Figure No. 2.1 are to execute;

i) the weaving experiments. The *songket* weavers will experiment weaving with the yarns introduced. Weaving with a combination of different types of yarns based on the information obtained from the secondary source (literature) research will also be experimented on.

ii) participant observation and interview methods which are qualitative in nature. The response of the weavers towards learning the basic
principles of textile science (identification of fibre, physical and chemical properties) and experiment weaving with yarns that they have not used before in *songket* weaving will be recorded. This also requires information on the definition of *songket* and documents the experiments that the *songket* weavers have experimented on (from observation and interviews).

### 2.4.4 Research and Development Experiments

The research and development experiments to create contemporary light-weight *songket* are executed at Stage 2 (Case Studies) and Stage 3 (R&D experiments at a textile workshop) of the research as outlined in Figure No. 2.1.

During Stage 2 of the research, a joint collaboration effort with weavers in Kuala Terengganu and Kuching was carried out to experimentally weave a collection of light-weight *songket*. However, the light-weight *songket* produced at this stage is still considered unfinished. It is only at Stage 3 that the light-weight *songket* fabrics completed at Stage 2 are further experimented on and finished at a textile workshop to create the innovative and contemporary light-weight *songket* with dimensions.

Stage 3 of the experiments will be executed in Kuching where a cottage-style textile workshop will be set up to prove that a cottage style textile workshop can be easily set up. The textile workshop will be set up to perform the experiment of changing the dimensions and structures of the contemporary light-weight *songket*.
After the setting up of the textile workshop, the contemporary light-weight *songket* produced using the traditional 2-shaft handloom (*kek*) from Stage 2 will be further innovated and improved in terms of textures, dimensions and handling of the fabric at the workshop. The research and development experiments of Stage 2 will be explained in Chapter 5 while those of Stage 3 will be presented in Chapter 6.

### 2.4.5 Interviews

According to Berg (2004), interviewing can be described as a conversation with a purpose to acquire information. In addition, Bryman (2001) states that semi-structured and unstructured interviews when referred collectively can be term as in-depth interviews or as qualitative interviews. Basically, in-depth interviews will be conducted to obtain data from the primary sources throughout the research. They are namely the unstructured (unstandardised / informal / non-directive) interview and the semi-structured (semistandardised / focused) interviewing methods.

Berg (2004) defines the unstandardised interview as “Completely unstructured, no set of order to any questions, no set wording to any questions, level of language may be adjusted, interviewer may answer questions and make clarifications and interviewer may add or delete questions between interviews”. Semistandardised interview is defined as “More or less structured, questions may be reordered during the interview, wording of questions flexible, level of language may be adjusted, interviewer may answer questions and...