

Learning Competencies of College Student in Garments and Design, Pangasinan State University

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Abstract

This study presents the results of the discussion of the data gathered using the questionnaire as the tool or instrument relative to the problem on the level of learning competencies of Industrial Technology Students major in Garments, Fashion and Design in Pangasinan State University. There were 50 students involved in the study. The areas covered the create garment design range variables, evidence guide; calculate and procure garment materials and supervision garment prototype preparation and production. It included the availability of tools, equipment, and materials needed in the course to acquire and develop the skills in garment, fashion and design.

The following were the salient findings: The level of learning competencies of the students were moderate in creation of garment design moderate in range variables, moderate in evidence guide, moderate in supervise garment prototype preparation and production; There was no significant difference between the perceptions of the students and teacher in the level of learning competencies of students themselves in garments, fashion and design; The tools, equipment, and materials were moderately adequate; The students were found to be generally weak in all areas of learning competencies in garment, fashion and design and the plan of action to improve or enhance the level of learning competencies was designed to be proposed.

Keywords: *Learning Competencies, Garment and Designs, Garment Prototype, Garment Preparation and Production, Fashion.*



I. INTRODUCTION

Rationale

The competence of fashion design clothing is knowledge of fashion design clothing program dedicated to skills and knowing needed by those professionals in fashion industry. It aims at designing a working framework to assess the importance of knowledge, skills, and abilities needed by fresh graduates. A response issued by a higher education institution through the development of competency is to ensure that the fresh graduates have possessed knowing and skills to pursue better wealth and success. Thus it is essential to identify the most prominent competency which enables graduates to pursue better living. One important thing obligatorily prepared by Vocational Education / TVET in the field of fashion design is a professional certification. Such form of certification is used to guarantee if the transferred education received by the graduates fulfils the necessity of recent economic development, along with the changes in technology and market demand, the value of market industry, and the preparation for placement in working field.

A certification is the outcome of standardized process related to institutional accreditation to get the role of a particular works. It is given through an assessment process, so that the assessment instrument needs to be standardized which covers a general scale to measure reliable and valid competency. The constructed assessment instrument is based on a set of qualification in a form of descriptive documents about work's role prerequisites. The assessment instrument is also used to confirm whether the required qualifications are fulfilled. This certification is heavily important to ensure that the graduate have relevant national and international skills to perform better in the working field. This challenge makes the teachers in charge interconnect with any businessmen to identify competency needed by fashion design department in developing relevant curriculum that fulfils industrial demands. The current situation demands that competency and training program is obligatory to make the graduates possess relevant knowing, skills, and other abilities to face the dynamic of industry challenges.

Professional certification is a stipulation given by a professional organization to those who can perform excellent and specific tasks. Additional professional certification is to get the acknowledgement of professional career and to improve one's credibility in working, also to gain more recent knowing which has never been gotten during a formal education. Moreover, it may enhance the job position and professional reputation if those person have been working in a company. The lacks of professional certification is difficult to obtain (even one has participated the examination, however, the graduates are still few. Then, the cost is categorized as expensive because the certification needs to be periodically renewed during certain timing intervals.

For assessing the need of skills in an industry, it is importance to create a cooperation between government, business industries, educational institution and either formal or informal training center to provide qualified human resources. The cooperation can be in a form of giving a working qualifications needed by government and any business industries, so that the educational institution and training center can provide qualified graduates. The cooperation may also result a standardized need qualification for human resources which is in a form of professional standard competency.

The competency includes knowing, skills and behaviors as importance factors to face current or future economic growth. A competent human resource is a key to deal with developing knowing-based economic. Meanwhile, NOS acts as a consensus result of any industries and



caretakers' interests, also being an effective communication device between working fields, educational institution and training center. A certification of a professional is an essential instrument to maintain a qualified worker's competency. Nowadays, numbers of higher education institutions prepare their students to face ASEAN Economic Community by giving them a professional certification. Said that a professional certification can improve quality and manage effective times in production due to a skilful operator. Moreover, this is relevant to work that the unit producing local short's brands showed 38% of skilful operators had 1 up to 20 years of working experience and all of them were well-trained in a working place. Moreover, the higher percentage is that sewing operators had one up to 20 years of working experience and got their specialized certificates in the scope of sewing.

This study wants to answer how the implementation of competency based assessment in the field of fashion design that covers advance pattern maker (CAD/CAM) and Garment Cutter (CAM), sewing machine operator, in-line checker and QC executive – sewing Line, embroidery job rolls, certification of training centres and trainers for job roles in a garment industry, and apparel sector.

Competency

Etymological, competency is an important ability to execute a job based on knowing, skills, and behaviours, so that it can be formulated that competency is one's ability that can be observed through knowledge, skills and behaviours in finishing a burdened task using a settled standard performance. Boahin (2014) argues that competency is related to skills to perform an activity. The effect of competency-based training is the gain of a professional skill. Being competent is an ability and authority had by a person to perform a job by referring to relevant knowing, skills, and behaviours.

In Europe, competency is an individual's capacity to perform a certain task and role for an expected standardized of particular contexts or professions (Biemans, et al, 2004; Mulder et al, 2006). Henceforth, involving practical and theoretical integrated knowledge, individual and social competence are broadly defined (Brockman et al, 2008). In Ghana, competency is conceptualized as one's capacity to perform professional tasks with a determined standard (COTVET, 2006). Through a certification of Australian, they can assess their skills and know in depth their value in promoting working opportunities.

A recent research also records that university graduates are not yet ready to be workers; a study in 2012 found that one of three American University graduates are not yet ready to be workers; a study in 2012 found that one of three American university graduates are not yet ready to face how hard the fulltime work is. Then, some university graduates who do not have a professional working experience, such as on job training, half-time work, and mentorship before graduation, 77% of them feel that the university prepares them to work, while 59% of the students is ready to work in a working field (Mourshed, Farrel & Barton, 2012). The doubts of student's professional development have been noticed by the boss; in samples (n=101), the new employers still feel that they get insignificant salary to support their lives (Mourshed et al, 2012). In 2013, a study found that 35% of US companies are difficult to fill in the job vacancy and suggest that the recruitment process needs to cooperate with university in developing relevant on job training to fill in the gap in working experience.

Competency Based Assessment

Competency based assessment is a process where an assessor work together with training participants to collect competency proofs using a given measurement from NOS (National



Occupation Standard) consisting of national qualifications.

Competency based assessment is also a set of proofs to demonstrate that assessor can perform relevantly to a particular standard. It also becomes a form of assessment derived from specific results articulated in the standard competency assessment which let assessor create a decision. That case is related to either competent or incompetent performance in Focus Competency-based Assessment Requirement about 'result'. The assessment must clearly demonstrate based on students' performance. Numbers of proofs should be collected to show that a candidate has fulfilled any working criteria related to single competency / an assessment for competency only. There are only two assessments which can be made in a context of a working field. A working performance should be demonstrated and assessed in a context of a working field. A working performance should be demonstrated and assessed in a possibly closer condition with the area where they usually practice it.

A written report is a form of written instruction of giving tasks where information and recommendation of actions needs to be presented. An aural report may be in a form of question and answer session by face-to-face mode. This method is useful in handling diverse groups of students with different literature abilities because assessor can make questions to guide candidates to understanding.

Working performance is the best method to collect reliable and authentic proofs about students' competency. This is because the assessment context is relied on the actual working condition that needs a demonstration of working competency and to optimize realism levels in an assessment process. Through a role play or a simulation, it gives an alternative of working performance in a working field. This can be seen as a scenario arranged to collect proofs of students' competency.

The Difference between Traditional and Competency Based Assessment

Traditional assessment is a process to give an opportunity for getting an academic credit in one or more certified courses, diploma, or any title following to where a competency based education involves the students to prove that they can master the course regardless times to accomplish. In a traditional assessment, they show that they have a skill as proof that they do not need to take a certain course and, in a competency based education, they prove that they have already mastered a required competency to take a course. Meanwhile, competency based assessment is a process where an assessor works with a participants in a training program to gain competency proof by using NOS measures that cover national qualification.

The notion of competency based assessment covers fluently worked, applied, trusted, flexible, and fair and save. The common lacks of designing assessment involve inappropriate assessment development, irrelevant assessment criteria to the blueprint of working performance, insufficient guidelines in the specific assessment of the recent skill development format.

An assessment of working performance is one that asks students to show whether they have mastered particular skill and competency by creating something. The assessment involves several types; planning and implementing experiments; writing essay which obliges students to rethink.

Youth empowerment is a significant object of sustainable development which has dominated topics in education and other sectors. It is development that meets the needs of the present, without compromising the ability of future generations to meet their own needs (United Nations, 2014). On September 25th, 2015, countries adopted a set of goals to **end poverty**, **protect the planet**, and **ensures prosperity for all** as part of a new sustainable development



agenda (Reynolds, 2002). Youth empowerment entails the sustainable development of youths for economic growth and social inclusion through several strategies aimed at making the youth self-reliant (Zimmerer and Scabaorough, 2005). Youth empowerment culminates in economic development of a country which refers to steady growth in the income levels. This growth mainly depends on its entrepreneurs.

Entrepreneurs are individuals with knowledge, skills, initiative, drive and spirit of innovation who aims at achieving goals (Reynolds, 2002). An entrepreneur identified being inherent in Vocational Education Vocational Education (VE) is supposed to provide graduates such as those in Home Economics (Clothing and Textiles) with technical technological and vocational training and prepare them for the world of work and socioeconomic empowerment. It ought to promote initiative and enterprise creation, since it represents a means of introducing the graduates to self-employed status through their direct contact with the professional and business world of fashion.

There is no doubt saying that, clothing is major need of man, which influences are individual's health, wellness and status (Arubayi, 2003). As a unit in Home Economics study. Clothing and Textiles is aimed at helping learners acquire knowledge, skills and techniques for meeting personal and social clothing needs. The aim of the Clothing and Textile curricular at the secondary schools is to teaching the learners how to strategically plan and use available resources in his/her environment to improve his/her home, family and societa. Clothing needs, thereby gaining sustainable economic development (Reynolds, 2002). Ir. Addition, Clothing and Textiles skills are needed not just for the home and classroom, but for the job market. Students are supposed to learn practical skills which would make them successful entrepreneurs. Hence, self-reliance and income generation activities are stress ir. Clothing and Textiles, which in recent time, has undergone innovative transformations with new equipment and tools that make the fashion industry challenging with great prospects (Reynolds, 2002).

New equipment and tools in clothing application have made clothe making to be quick and effective. New equipment tools are gadgets and implements that are an advancement of old equipment and tools. I have been able to be achieved through the internet by making clothing technology cheap and fast. The growth of the internet is a necessity nowadays (Mohammed, 2012) Several modern tools have made sewing interesting. For example, in addition to sewing Tears, rotary cutte may be used for cutting fabric, usually used with a cutting mat to protect other surfaces being damaged. Seam rippers are used to remove mistaken stitches. Social marking pens and chalk are used to mark the fabric as a guide to construction. According to Ekpeyong (2008), pressing and ironing are an essential part of many sewing projects, and require additional tools. a steam iron is used to press seams and garments, and a variety of pressing aids such as a seam roll or tailor's ham are used to aid in shaping a garment. A pressing cloth may be used to protect the fabric from damage (Mohammed, 2012).

Sewing machines are now made for a broad range of specialized sewing purposes, such as quilting machines, heavy-duty machines for sewing thicker fabrics (such as leather). Computerized machines for embroidery, and sergers for finishing raw edges of fabric. A wide variety of presser foot attachments are available for many sewing machines. Machines-fee: exist to help with hemming, pintucks, attaching cording, assembling patchwork, quilting, an: a variety of other functions.

Basic competencies in garment and design encompass essential skills in areas like workplace communication, team leadership, and problem-solving, as well as skills in using



mathematical concepts and technologies. These foundational abilities are crucial for garment and design professionals to succeed in their roles.

Basic competencies involve the different areas or dimensions such as *Workplace Communication*, this includes effectively communicating with colleagues, clients, and superiors, both verbally and in writing. *Leading small teams* this involves guiding and motivating team members to achieve common goals, ensuring tasks are completed efficiently. *Negotiation Skills*, Ability to negotiate effectively with suppliers, clients, and other stakeholders to reach mutually beneficial outcomes. *Problem – solving* identifying and resolving workplace challenges creatively and efficiently. *Using Mathematical Concepts and Techniques* Applying mathematical principles for measurements, calculations, and other tasks. *Using relevant technologies*, Proficiency in using design software, digital tools, and other technologies relevant to garment and design.

Additional considerations:

- These basic competencies, alongside common and core competencies, are often outlined in training programs like TESDA's Fashion Design (Apparel) NCIII.
- The specific basic competencies required may vary depending on the role and the industry, but the core principles of communication, teamwork, problem-solving, and technical skills remain essential.

Common competencies in garment and design include carrying out measurements and calculations, setting up and operating machines, performing basic maintenance, applying quality standards, and maintaining effective relationships with clients. These skills are foundational for working in the garment industry and fashion design.

Elaboration:

Measurement and Calculations. This involves accurately taking body measurements, calculating fabric requirements, and performing calculations related to garment construction. **Machine Operation.** This includes setting up and operating sewing machines, industrial sewing machines, and other equipment used in garment production. **Basic Maintenance.** This involves performing routine maintenance on sewing machines and other equipment to ensure they are in good working order. **Quality Standards.** This involves understanding and applying quality control standards throughout the garment production process, from material selection to finished product. **Client Relationships.** This involves effectively communicating with clients, understanding their needs, and maintaining positive working relationship.

The core competencies in garment and design revolved around the creative process, production aspects, and the business side of fashion. These include creating garment designs, managing materials, supervising production, evaluating finished products, and promoting fashion. They also involve skills like measuring, calculating, and operating machinery, as well as managing client relationships and quality standards.

Here's a more detailed breakdown: **Core Competencies: Creating Garment Designs.** This involves developing design concepts, sketching, creating patterns, and selecting fabrics. **Calculating and Procuring Garment Materials.** This includes calculating fabric needs, ordering materials, and managing inventory. **Supervising Garment Prototype Preparation and Mass Production.** This involves overseeing the construction of prototypes, setting up production processes, and ensuring quality control. **Evaluating Finished Products.** This involves assessing the quality, fit, and appearance of garments, making adjustments as needed. **Supervising Packaging and Dispatching of Finished Garments.** This involves preparing garments for shipping

and ensuring timely delivery. Performing Promotional Activities. This includes creating marketing materials, showcasing designs, and engaging with clients.

Calculating garment material costs and procurement involves understanding fabric consumption, supplier, and relevant formulas. Procurement includes identifying suppliers, negotiating pricing, and managing inventory.

1. Fabric Consumption Calculation:

- Determine fabric needs:

Calculate the amount of fabric required per garment based on pattern size, panels, and estimated wastage.

- Wastage:

Factor in a percentage for cutting waste, typically 5-10%, according to Ramesh radhakrishnan.

- Fabric Consumption Formula:

$(\text{Length} \times \text{Width} \times \text{GSM} \times \text{Panels} \times \text{Wastage} \%) \text{ Yield}$, where:

- Length & Width: Based on the garment pattern.
- GSM: Fabric weight per square meter.
- Panels: Number of pieces in the pattern.
- Wastage %: Typically 5-10%
- Yield: The percentage of fabric that can be used after cutting.

2. Supplier Pricing and Material Cost:

- Identify suppliers:

Research and contact potential suppliers of fabrics, trims, and other materials.

- Negotiate prices:

Negotiate pricing with suppliers, considering factors like quantity, payment terms, and delivery time.

- Consider global market conditions:

Be aware of global market trends and their impact on raw material prices.

- Calculate material cost:

Multiply the price per unit of each material by the quantity needed per garment.

3. Procurement Process:

- Order placement:

Place purchase orders with suppliers, specifying quantity, quality, and delivery requirements.

- Inventory management:

Implement inventory management strategies to track and control material stock.

- Consider global factors:

Factor in taxes, customs duties, and logistics costs when procuring materials.

- Track lead times:

Estimate and monitor lead times for sourcing and production to ensure timely delivery.

Supervising garment prototype preparation and mass production involves overseeing the entire process from initial design concept to the final mass-produced product. This includes ensuring the prototype accurately reflects the designer's vision, testing it for fit, functionality, and quality, and then scaling up the production process to create the finished garments.

Here's a more detailed breakdown:



Prototype Preparation:

Design interpretation. Translating the designer's vision into a practical, wearable prototype. This involves interpreting sketches, technical drawings, and fabric specifications.

Pattern making. Creating the patterns needed to cut the fabric for the prototype. This can be done by hand, using computer-aided design (CAD) software, or a combination of both.

Sample making. Cutting and sewing the prototype garment according to the patterns, ensuring accurate fit and construction details.

Testing and Evaluation. Assessing the prototype's fit, functionally, quality, and overall appearance. This may involve wear testing, fabric performance testing, and visual inspections.

Refinement. Making necessary adjustments to the patterns, construction techniques, or fabric based on the testing results.

Mass Production:

Scaling up. Adapting the prototype patterns and construction techniques for mass production, taking into account factors like cost-effectiveness, production capacity, and efficiency.

Material Sourcing. Ensuring the availability of sufficient quantities of the required fabrics and other materials for mass production.

Production Planning. Scheduling and coordinating the various stages of mass production, including cutting, sewing, finishing, and quality control.

Quality Control. Implementing measures to ensure the quality and consistency of the mass-produced garments. This includes regular inspections, testing, and corrective actions.

Production Supervision. Overseeing the production process, addressing any issues or problems that may arise, and ensuring that the finished garments meet the required standards.

In garments design, evaluating finished products and supervising their packaging and dispatching are crucial control and logistical steps. This involves checking for quality, preparing garments for shipping, and ensuring timely delivery, according to TESDA.

1. Evaluating Finished Products:

Quality Check. This step involves examining the garment for any defects, such as loose seams, uneven hems, or incorrect fabric placement.

Fit. Ensure the garments fits correctly, considering the size, ease of movement, and overall silhouette.

Standards. The garment must meet pre-determined quality standards, which may include fabric texture, color and embellishments.

Documentation. All evaluations should be documented, including the date, time, and any defects found.

2. Supervising Packaging and Dispatching

Preparation. Garments need to be folded, wrapped, and labelled correctly, ensuring proper protection during transit.

Packaging. Consider using suitable packaging materials, such as garment bags, protective layers, and sturdy boxes.

Dispatching. Ensure timely and accurate dispatching of the finished product, whether it's to a retail store, wholesale client, or individual customer.

Logistics. Maintain accurate records of shipments, including tracking information, and ensure efficient delivery processes.



As far as training standards in garment design is concern certain standard is the main focus and consideration be the core of the matte.

Training standards in garment design encompass the competencies, curriculum, and assessment methods necessary for creating well-designed and manufactured apparel. These standards are crucial for ensuring that designers, tailors, and other garment professionals possess the skills and knowledge to produce high-quality products. They are often formalized in training regulations (TR), which provide guidelines for competency assessment, program delivery, and curriculum development.

Key Elements of Training Standards in Garment Design, it is the crucial element for training. These are the following:

Competency standards. These define the specific skills and knowledge required for effective performance in garment design, including areas like pattern drafting, material preparation, sewing, and finishing touches.

Training delivery. Training standards outline how training programs should be structured, including curriculum design, teaching methods, and the use of relevant tools and requirement.

Assessment. They specify how trainee's competencies are evaluated to ensure they meet the required standards, often through practical assessment and written examinations.

Curriculum Development. Training standards provide the framework for developing comprehensive curricula that cover all essential aspects of garment design, from basic skills to advanced techniques.

Trainee Entry Requirements. These standards may outline any prerequisite qualifications of experience needed for trainees to participate in a specific program.

Trainer Qualifications. They may include requirements for the qualification and experience of trainers to ensure they are qualified to deliver the training.

Tools and Equipment. Training standards specify the types and specifications of tools, equipment, and materials needed for training programs, including sewing machines, cutting tools, and various fabrics.

Training Facilities. They may specify the type of facilities required for training, such as dedicated workshops, sewing rooms, and access to necessary resources.

Examples of Training Standards in Different Garment Disciplines:

Dressmaking NC II. Focuses on competencies like drafting and cutting patterns, preparing and cutting materials, sewing casual apparel, and applying finishing touches, according to TESDA's Training Regulations.

Tailoring NC II. Emphasizes competencies related to drafting and cutting patterns for men's casual apparel, laying out patterns, sewing, and applying finishing touches.

Fashion Design (Apparel) NC III. Covers a broader range of competencies, including garment design, production, evaluation and promotion, as detailed in the TESDA Training Regulations.

These training standards are crucial for ensuring that individuals in the garment sector develop the necessary skills to meet industry demands and create high-quality apparel.

Training delivered should be considering with certain elements to achieve high level of competencies. They are the following:

Training delivery in garment design can be structured in various ways, often involving a combination of theoretical and practical learning experiences. This can include lectures, workshops, hands-on activities, and potentially even on-the-job training.

Key Aspects of Training Delivery in Garment Design:

Theoretical Foundations. Training often begins with foundational knowledge like the history of fashion, current trends, basic sewing techniques, and an understanding of garment production processes.

Practical Skills Development. Hands-on training in pattern making, drafting, fabric cutting, and sewing is crucial. This may involve using sewing machines, computer-aided design (CAD) software, and working with different fabrics.

Industry-Specific Concepts. Training can delve into areas like fashion business, retailing, marketing, and merchandising, and may also include case studies of successful fashion brands and their strategies.

Modular Approach. Breaking down training into smaller, manageable modules can help with organization and evaluation of both the trainer's performance and the trainees' achievements.

Lesson Plans. Well-structured lesson plans can guide the trainer in presenting each module, ensuring a clear learning path for the participants.

Evaluation and Feedback. Regular assessment of trainees' progress and the trainer's effectiveness is important for continuous improvement.

Examples of Training Delivery Methods:

Classroom Lectures. Lectures can be used to deliver theoretical concepts and provide context for practical exercises.

Workshops. Workshops allow participants to engage in hands-on activities and practice specific skills under the guidance of a trainer.

On-the-Job Training. Practical experience gained through working alongside experienced professionals in a garment design or production environment can be invaluable.

Online Learning. Online platforms can provide access to a wider range of training resources and materials, including video tutorials, interactive modules, and online communities.

Theoretical Framework

According to the literature review sections, the research is anchored on two theories. The Uses and Gratification theory and the Connectivism Theory, as was previously mentioned, social media offers today's youth a portal for entertainment and communication and it is becoming one of the main platforms for accessing information and news. This study aims to explore the learners' perception on the learning competencies and the adequacy and availability of learning materials, tools, and equipment for garment design. It motivate them to engage in designing fashion on garment.

According to Olise & Makka, (2013) the theory was developed by Elihu Katz in the early 1970's Uses and gratification theory suggests that the acquisition of high level of learning competencies can improve the students become more open to improvement and needs to achieve gratification (Olise & Makka, 2013). Uses and gratification of the social media approach focuses on why and how learners use social media to satisfy their needs (Larose, Mastro, & Eatin, 2001).

This study aims to explore to what extent do pupils using social media in academic related purposes and whether it affects them positively or negatively. Connectivism theory between the learning approach emphasizes the role of social media context in how learning occurs and explains how Internet technologies have created new opportunism for people to lean and share information across the World Wide Web and among themselves (Siemens, 2005). The theory was developed by Stephen Downes and George Seimens (Transue, 2013). Connectivism



theory suggests that students encouraged to explore more on the competitive garment fashion design. Connectivism suggest that the use of technology to help individuals to be connected with knowledge and information ought to improve the learning process not vice versa (Evans, 2014).

This study is anchored on the Development Interaction Discovery Approach theory of Lucy Sprague Mitchell (2006). The theory focuses itself on learning through discovery. This theory works by means of exploiting individual students' interest in order to make sure that they obtain the information most essential to his personal and individual development. It deals with the five developmental domains of childhood development like: Physical: the way in which a child develops biological and physical functions, including eyesight and motor skills, Social: the way in which a child interacts with others. Children develop an understanding of their responsibilities and right as members of families and communities, as well as an ability to relate and work with others. Emotional: the way which students create skill connections develop self-confidence. Creativity connections develop when students relate to other people and share skills artistically. The way in which students communicates, including how they present their feelings and emotions. The child acquires language development which is measured by the rate of vocabulary acquisition and reading skills. Cognitive skills: the way in which a child organizes information which includes problem solving, creativity, imagination and memory.

Another theory is Vygotsky theory which proposes that children learn through their interactions with more knowledgeable peers and adults. His concept of the zone of proximal development (ZPD) is the difference between what a learner can do without help and what a learner can do with help. According to Vygotsky, "what is the zone of proximal development today will be the [child's] actual development level tomorrow". Children should be taught materials that employ mental processes within the ZPD.

These theories contributed a strong foundation of the development of the study in the level of extent of adequacy of the tools and equipment in the learning areas of Garment and Fashion design.

Conceptual Framework

In connection to the foregoing, the study used the input-process-output (IPO) model. The input consisted of the level of living competencies; extent of utilization of the tools and equipment; and the differences of perception of the two groups of respondents.

The process consisted of the in-depth analysis of the learning competencies, availability and adequacy of the tools and equipment needed in the acquisition of the competence in the subject.

The output consisted of the proposed measures.

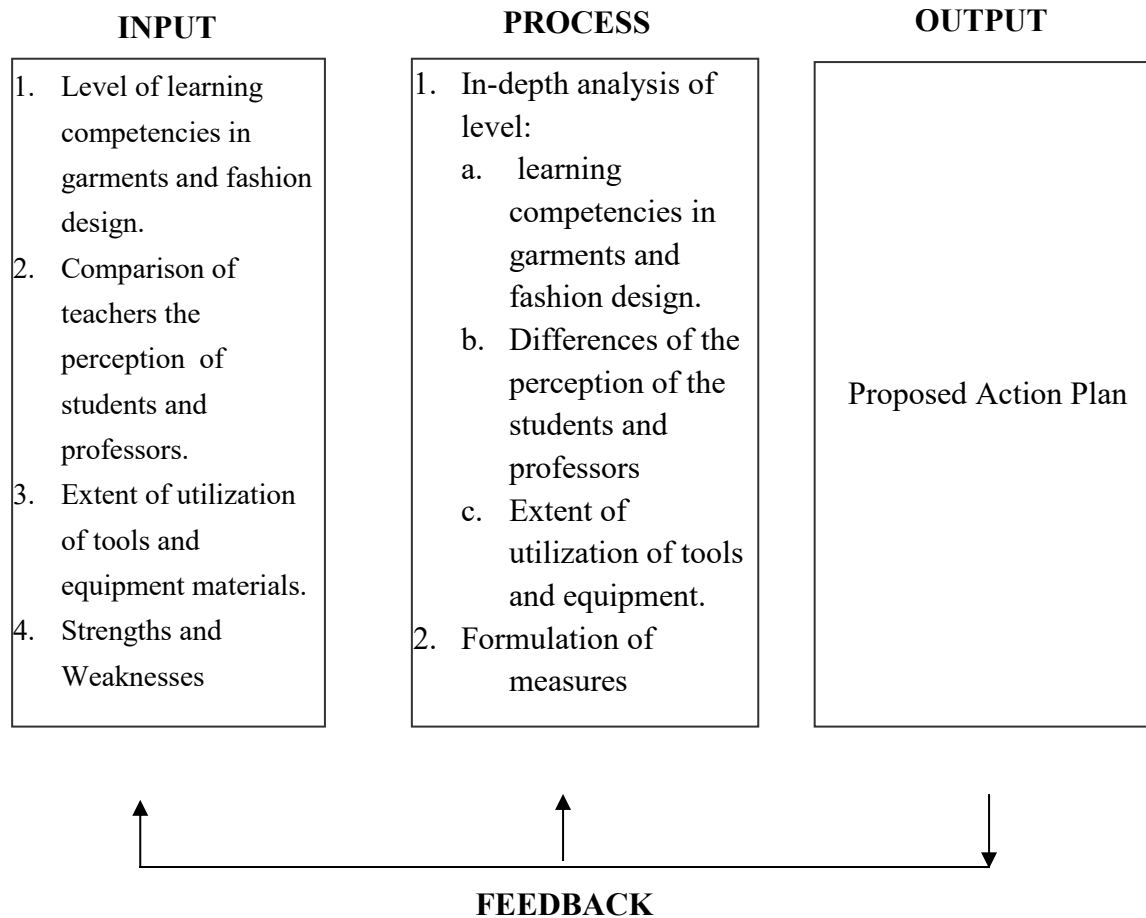


FIGURE 1. Paradigm of the Study

Statement of the Problem

This study aims to determine the level of learning competencies of Industrial Technology Students major in Fashion Design (Apparel). Pangasinan State University this school year 2025 – 2026.

Specifically, it seeks answers to the following related questions.

1. What is the level of learning competencies of Industrial Technology Students major in Fashion Design (Apparel) students as perceived by themselves and their instructor along;
 - a. create garment design,
 - b. calculate and procure garment material,
 - c. supervise garment prototype preparation and mass production,
 - e. evaluate finished product,
 - f. supervise packaging and dispatching of finished garment,
 - g. perform promotional activities for fashion product and or services?
2. Is there a significant difference between the perception of the students and instructors in the level of learning competencies in Industrial Technology along the above mentioned variables?
3. What are the strengths and weaknesses of Industrial Technology Students major in Garments,



Fashion and Design in Pangasinan State University?

4. What is the level of availability of tools and equipment and materials of fashion design?
5. What action plan can be proposed to enhance, the level of learning competencies of students in PSU College of Industrial Technology major in Fashion and Design (Apparel)?

Hypothesis

The following hypothesis is tested at .05 level of significance.

1. There is no significant differences between the perception of the students and their instructors on the level of competencies in garments and fashion design.

Significance of the Study

This research specifically on the findings can be beneficial to the following.

Curriculum Planners. The findings can give insights on the curriculum planners to design relevant activities and update the course content, facilities, tools and equipment needed to compete with the international standards.

Faculty and garment students. The findings could guide them to develop further the skills or competencies in garments and fashion design as well as becoming more competitive in the workforce locally and internationally.

Research herself. The researcher can gather data on how to improve the area of the course Garment and fashion design to become skilful and knowledgeable on their course in garment and fashion design.

Other Researchers. The results of the study can help other interested researchers to conduct similar researches in the course so that the value of the course in Garment and fashion design can be improved.

Scope and Delimitation

This research is on the learning competencies of college students enrolled in Garments and Fashion design in Pangasinan State University this school year 2024 – 2025. It is also focused on the degree of the availability and adequacy of the tools and equipment in garment and fashion design. There were 103 students and 12 instructors in Pangasinan State University in Industrial Technology. Descriptive research design with the use of the questionnaire was as a tool to gather needed data for interpretation needed as necessary in this research.

Definition of Terms

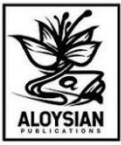
The following terms / phrases are defined lexically or operationally to shed light on the findings of the studies.

Competencies. It refers to the quality or state of being functionally adequate, or having sufficient knowledge, judgement or skill strengths for particular discipline (Webster 2010).

Learning Competencies. As used in this study means an important ability to execute a job based on knowing skills and behavior. It is related to skills to perform and activity. It is the capacity to perform certain tasks.

Tools and Equipment. In this study it refers to the needed materials used in garment fashion and design to accomplish the needed activities related to training the students in garment, apparel and fashion.

Garment. It is referred to clothing and textile aimed to helping learners to acquire knowledge, skills and technique for meeting personal and social clothing needs.



Design. It is referred to the ability to produce, strategically plan and use available resources in his/her environment gaining sustainable economic development.

Fashion. It is referred to the updated and acceptable design of clothing by the society that promotes creativity and level up to the design of garment, clothing, in the society as accepted and artistively regarded as well advanced work of art in clothing.

II. RESEARCH METHODOLOGY

This chapter presents the research design, locale and population of the study, data gathering tool, data gathering procedures, treatment of the data and statistical tools used in the study.

Research Design

Descriptive method of research will be used in this study. It is an organized attempt to report, analyze and interpret the present status of anything, group of persons, set of conditions, or any other phenomenon that a researcher wishes to study Servilla (2009)

It is deemed appropriate for the study because it simply tried to the level competency of the students of Pangasinan State University is garnered fashion and design as one cause in Industrial Technology and on the basis of the findings, propose action plan to help the students improve or enhance their knowledge and skills in garments, fashion and design.

Locale and Population of the Study

The study was conducted in all College Students in Garment fashion and design enrolled this year 2024 – 2025 in Pangasinan State University.

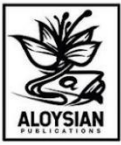
There were 103 students enrolled in Garments Fashion and Design and 12 instructors engage in the course in Industrial Technology major in Garments, Fashion and Design taken in complete enumeration.

Table 1
Table of the Respondents

	Students	Instructor
First Year	40	3
Second Year	35	3
Third Year	37	3
Fourth Year	38	3
Total	103	12

Problem 1

Point Value	Statistical Range	Descriptive Rating
3	2.34 – 3.00	Highly (H)
2	1.67 – 2.33	Moderately (M)
1	1.00 – 1.66	Low (L)



The formula is getting the weighted mean is as follows:

Formula:

$$WM =$$

$$\text{Where: } \frac{\sum fxV}{N}$$

WM = Weighted Mean

$\sum fx$ = Sum of frequency per item

V = Point Value

N = Total number of respondents

Problem 2

The t-test was used to determine the existence of significant difference in the perceptions of the respondents on the extent of disaster preparedness and seriousness of problems encountered.

Problem 3 on strengths and weaknesses mean value of 2.34 and above was strengths and mean value of 2.33 and below weaknesses.

Problem 4

To determine the level of adequacy and availability of the tools and equipment the statistical point value was used below.

21 and above	very much adequate (VMA)
16 – 20	much adequate (MA)
11 – 15	adequate (A)
6 – 10	moderate adequate (MOA)
1 – 5	not adequate (NA)

The questionnaire was adopted to the training regulations in fashion, design apparel and garment section of Technical Education and Skills Development Authority, East Service Road, South Superhighway, Taguig, Metro Manila (TESDA)

Data Gathering Procedure

The researcher first solicited the permission of the President of Pangasinan State University and the Dean Bachelor of Industrial Technology to conduct the study and administer the questionnaire to the garment students covered in this study. Likewise letters of permission from the President and Dean and Heads covered in this study was prepared and secured.

After the permission was granted the researcher prepared copies of the questionnaire and administered them with the help of some Instructor known to her from College of Bachelor of Science in Technology.

The researcher took her more or less her three weeks to administer and retrieved the questionnaire due to the intervening activities of the students from one another and the availability of the respondents. A 100% retrieval of the questionnaire was attained.

Statistical Treatment of Data

Statistical Methods was employed to aid the researcher in the analysis and interpretation of data.

1. What is the level of learning competencies of Industrial Technology Students major in Fashion Design (Apparel) students as perceived by themselves and their instructor along;

- a. create garment design,
 - b. calculate and procure garment material,
 - c. supervise garment prototype preparation and mass production,
 - e. evaluate finished product,
 - f. supervise packaging and dispatching of finished garment,
 - g. perform promotional activities for fashion product and or services?
2. Is there a significant difference between the perception of the students and instructors in the level of learning competencies in Industrial Technology along the above mentioned variables?

The weighted mean was used to determine the extent of the level of the learning competencies. The sets of data were given their proper importance as shown by the following point values, statistical range and descriptive equivalent rating:

Point Value	Statistical Range	Descriptive Rating
3	2.34 – 3.00	Highly (H)
2	1.67 – 2.33	Moderately (M)
1	1.00 – 1.66	Low (L)

The formula in getting the weighted mean is as follows:

Formula:

$$WM =$$

$$\text{Where: } \frac{\sum fxV}{N}$$

WM = Weighted Mean

$\sum fx$ = Sum of frequency per item

V = Point Value

N = Total number of respondents

III. RESULTS and DISCUSSION

This chapter presents the results and discussion of the data gathered on learning competencies of learners / students in Industrial Technology major in Garments, Fashion and Design, Pangasinan State University. The data deals on the five dimensions such as create garment design, range variation, evidence guide, calculate and procure garment materials, and supervise garment prototype preparation and production.

Table 2 presents the learning competencies of students along create garment design as perceived by the students themselves and their Department Head.

Table 2
Creation of Garments Design as Perceived by Both Students and Teachers

Indicators	Students		Instructors		Overall Average Weighted Mean	
	AW M	D E	AW M	DE	AWM	DE
A. Creation of Garment Design						

1. Determine client requirements	2.30	M	2.25	M	2.28	M
2. Research fashion trends and theme analysis	2.10	M	2.10	M	2.10	M
3. Produce design	1.90	M	1.95	M	1.93	M
4. Clients requirements are identified based on clothing needs and specification verified with / confirmed with client.	1.65	L	1.66	L	1.66	L
5. Sample materials are presented to clients approved.	1.70	M	1.65	L	1.68	M
Total AWM	1.93	M	1.92	M	1.93	M

Table 2 revealed that students had moderately learned low to create garment design in determining client requirements with an overall mean of 2.28 research fashion trends and theme analysis, moderate 2.10; produce design moderate with 1.93 weighted mean 1.93; and ability to have sample materials are presented to the clients approval 1.68 overall total average weighted mean. The findings implied that the students had the average ability to determine the creation of garment design and that they failed to enhance and acquire the necessary skills to create garment design which is necessary to become more adapt and priced in the garment design industry.

Considering the indicator of creation of garment design in detail, it disclosed that the students, had low ability to identify the clients requirement based from the clothing needs and specification verified with client approval proven by the weighted mean of 1.66. The findings implied that the students failed to consider the clients requirement based from the clothing needs and specification verified unit client.

As a whole it could be revealed that the students had moderate skills in creation of garment design proven by the total average weighted mean of 1.68. This implied that they failed to maximize their skills competence in creation of garments design.

Table 3
Range Variables

Competencies	Students		Instructors		Overall Average Weighted Mean	
	AWM	DE	AWM	DE	AWM	DE
B. Range Variables						
1. Client walk – in / referred	1.68	M	1.69	M	1.69	M
2. Needs and specification (purpose designs, color, fashion, body measurement budget).	1.69	M	1.68	M	1.69	M
3. Reference Sources	1.66	L	1.65	L	1.66	L

(photograph, magazine fashion books, catalog, internet, mouse fashion shines.						
4. Principle of design	1.68	M	1.68	M	1.68	M
5. Elements of design	1.67	M	1.67	M	1.67	M
6. Figure details fully						
7. Initial designs or partial body drawings, including head, neck, waist, bust, hips, legs, arms, shoulder, body built, skin tone, height.	1.68	M	1.68	M	1.68	M
8. Sample materials (swatches, color sample, accessories and details e.g. button, beads lace etc.	1.69	M	1.62	MA	1.69	MA
9. Revisions e.g. enhancement tone-down, written agreement, verbal.	1.67	M	1.68	M	1.68	M
Total AWM	1.68	M	1.68	M	1.68	M

Data showed that the competencies of the students in range variables were described as moderate with their respective weighted mean such as client walk-in referral (1.69); principle of design (1.68) and elements of design (1.67). This meant that the students had not acquired higher level of competence with regard to forgive detail fully initial design (1.68) and elements of design (1.67). This meant that the students had not acquired higher level of competence with regard to forgive details fully initial design as partial body drawing including head, neck, waist, bust, hips, legs, arms, should, body build, skin tone and height. Looking at the indication fully one of the indicator was rated low which was as reference sources like photograph, magazine, fashion book, catalog, instinct, movies and fashion shows. The findings implied that the students were not exposed in reference services which was necessary to engage further in the will of fashion garment and design.

As a whole, it could be revealed that the students were moderately in range variable with total average weighted mean of 1.68.

Table 4 revealed that all of the six indicator were described as moderate with their corresponding weighted mean. They were as follows: critical aspect of competing evidence, the candidate produce designs finalized design applied quality and artistic standard (1.67) moderate; underpinning knowledge and attitude eg. fashion history business etiquette (1.69) moderate; underpinning skills interpersonal skills interpreting design, communication skill, computation skills, sketching and analysis (1.70) moderate; resource implication, materials and tools relevant to the tasks / activity (1.71) moderately; method of assessment (1.70) moderate; and context of assessment (1.70) moderate.

Table 4
Competence of Students in Garment Fashion and Design
Along Evidence Guide

Competencies	Teachers		School Instructors		Overall Average Weighted Mean	
	AWM	DE	AWM	DE	AWM	DE
C. Evidence Guide						
1. Critical aspects of competency evidence that the candidate, produce design, finalized design applied quality and client artistic standards.	1.66	L	1.67	M	1.67	M
2. Underpinning knowledge and attitude eg fashion trends, terminologies, body structure, textile properties, fashion history, business etiquette.	1.68	M	1.69	M	1.69	M
3. Underpinning skills e.g. interpersonal skills, interpreting design, communication skills, computation skills, sketching and analysis.	1.70	M	1.70	M	1.70	M
4. Resource implication materials and tools relevance to the tasks / activity.	1.70	M	1.71	M	1.71	M
5. Method of Assessment	1.70	M	1.70	M	1.70	M
6. Context of Assessment	1.70	M	1.70	M	1.70	M
Total AWM	1.69	M	1.69	M	1.69	M

The findings implied that the student failed to maximize their competencies along evidence guide. It meant further that they had not mastered the quality of design, produce the client artistic design.

As a whole the failed to maximize the acquisition of their skills in fashion, garment and design proven by the total average weighted mean of (1.70).

Table 5 showed the extent of which the students gathered using follow-up study it could be noticed that the level of client reaction suggested that the students.

Table 5
Calculate and Procure Garment Materials

Competencies	Students		Instructors		Overall Average Weighted Mean	
	AW M	D E	AW M	DE	AWM	DE
D. Calculate and Procure Garments Materials						
1. Source of garment materials	2.33	M	2.30	M	2.32	M
2. Identify garment cost component	1.80	M	1.79	M	1.80	M
3. Calculate production cost	1.79	M	1.80	M	1.80	M
4. Purchase garment materials	1.80	M	1.85	M	1.83	M
Total AWM	1.93	M	1.84	M	1.94	M

Data should that all the indicator on calculate high with their corresponding weighted mean such as: source of garment materials (2.31) identify garment cost important 2.34; calculate production costs (2.33); and purchase garment materials (2.34). The findings implied that the students failed to reach the desired standard level of competencies along calculate and procure garment materials. The results gave the dangerous level of analysis which is moderate proven by the overall average weighted mean of 1.94.

Table 6
Supervise Garment Prototype Preparation and Production

Competencies	Students		Instructors		Overall Average Weighted Mean	
	AW M	D E	AW M	DE	AWM	DE
E. Supervise Garment Prototype Preparation and Production						
1. Overseas prototype preparation	1.70	M	1.80	M	1.75	M
2. Overseas mass production of garment	1.75	M	1.79	M	1.77	M
3. Monitor progress of production	1.85	M	1.79	M	1.80	M
4. Resolve production problem	1.66	L	1.66	L	1.66	L
Total AWM	1.72	M	1.76	M	1.75	M

Table manifested that the (4) out of five indicator were rated moderately high with their corresponding weighted mean. They were as follows. Overseas prototype preparation (2.33); overseas mass production of garments (2.28); monitor progress of production (2.35); and resolve production problem (2.25).

The findings implied that the students failed to master the desired level of competencies

along supervise garment prototype preparation and production which resulted to the total average weighted mean of 2.30.

Table 7 showed the facts that the students were moderately competent in all areas of fashion design apparel such as create garment design 2.28. Range variables 1.68, evidence guide 1.69; calculate and process garnered materials (2.34), and supervise garment prototype preparation and production (2.28).

Table 7
Summary Table of the Level of Learning Competencies of Students

Dimensions / Areas	Learners		Instructors		Overall Average Weighted Mean	
	AW M	D E	AW M	DE	AWM	DE
1. Create Garment Design	2.30	M	2.25	M	2.20	M
2. Range Variables	1.68	M	1.68	M	1.68	M
3. Evidence Guide	1.69	M	1.69	M	1.69	M
4. Calculate and Procurement of Garment Materials	2.34	M	2.34	M	2.34	M
5. Supervise Garments Prototype Preparation and Production	2.24	M	2.30	M	2.28	M

The findings implied that the students had acquired the minimum standard of competence in fashion design apparel. It revealed further that they failed to maximize the needed standard of competencies.

Significance Difference Between the Perception of the Teachers and Students of Garments, Fashion and Design

Table 8
Difference Between the Perception of the Teachers and Students of Garment, Fashion and Design

Dimensions / Areas	Students		Instructors	
	AW M	DE	AW M	DE
1. Create Garment Design	2.30	M	2.20	M
2. Range Variables	1.68	M	1.68	M
3. Evidence Guide	1.69	M	1.69	M
4. Calculate and Procurement of Garment Materials	2.34	M	2.34	M
5. Supervise Garments Prototype Preparation and Production	2.24	M	2.30	M

$t_{b@df} = 2.160$

Results $t_c = 0.345$; $t_{b@0.05; df 13} = 2.160$

Findings $t_c < t_b$

Decision: Accept the null hypothesis

Results: There is no significant difference between the perception of the students and their teachers on the competencies in garment fashion design.

The table revealed that there is no significant difference between the perception of the students and teachers on the level of learning competencies because the computed *t* is lesser than the tabular value at 0.95 level of significance. The decision is to accept the null hypothesis which means that the students and teachers agree with each other on the level of competitive.

Table 9 Level of Adequacy of Tools, Equipment and Materials for Fashion Design, and Apparel as perceived by the Students.

Table 9

Adequacy of Tools, Equipment and Materials Adequacy and Availability of Tools, Equipment and Materials

Tools	QTY	DE
1. Cutting Shear 8 – 12 inches	6	MOA
2. Round Plastic Basin Plastic Pail	2	NA
3. Scissors (Paper) 6 – 8 inches	16	MA
4. Camera – 12 Megapixel	3	NA
5. USB Drive 8 GB	9	MOA
6. White Board Eraser	9	MOA
7. Paper Mache Medium Size Dress form up to 2 nd Hip	16	MOA
8. Tape Measure 60 inches	9	MOA
9. Metal Hip Curve	5	NA
10. Wood Meter Stick	7	MOA
11. Metal French Curve	5	NA
12. Pinking Shears	4	NA
13. Transparent Ruler (with grid) – 24	5	NA
14. Sewing Box 14 inches x6x4	5	NA
15. Metal tracing wheel with wood or plastic handle	5	NA
16. Plastic hanger	5	NA
17. Screw driver flat (medium)	30	VL
18. Plastic triangle 16” 45 ⁰ x90 ⁰	6	MOA
19. Water hand spray	7	MOA
20. Metal seam ripper with plastic handle	5	NA
21. Emery bag	6	MOA
22. Metal L-Square	6	MOA
23. Bobbin case	20	MA
24. Battery operated calculator 6-digit	4	NA
25. Bobbin spool	20	MA
26. Hanger, assorted type and sizes (for packaging demonstration)	10	MOA
27. Metal clothes rack	5	NA

Table 9 revealed that the following tools were adequate and available: scissors (paper 6-8 inches/16) paper mache 16 quantity much adequate and available; plastic hanger 30 very much adequate and available; screw driver flat 30 very much adequate and available, bobbin case 20 much available and adequate bobbin spool 20 much adequate and available. The findings implied that there were enough number of tools that can be used for training and improve their competencies.

However, looking at the data further there were tools which were not availability such as: camera megapixel, metal hip curve, metal French, pinking shears transparent ruler, sewing, metal training, metal seam, battery operated calculator – 6 digit, and metal clothes rack. The findings implied that tools which were basic materials to challenge the students acquire and develop the skills of the in fashion design – apparel were inadequate and not most of the time available when needed.

Table 10 revealed that hanger rack, and sleeve board are adequate and available and so with the stools. It meant that these equipment could help the students in garment fashion and design improve their work when needed. However, looking at the data further it could be declared that most of the equipment were not available such as plastic or wood or metal chairs (1), medium fiber glass model body form (2); display cabinet (3), personal computer (4), white board (5), flat iron (5), cutting table (4). The findings implied that there was a great insufficiency of the necessary equipment to perform their activities and acquire their skills for mastery and efficiency.

Table 10
Adequacy of Equipment in Fashion Design

Equipment	QTY	DE
1. Plastic or wood or metals chairs with back rest	1	NA
2. Medium Fiberglass Model Body Form	2	NA
3. Display Cabinet, glass-door, with shelves, 6'x4'x1'	3	NA
4. Personal Computer G41T-R3-1333/1066/800MHZ, Conroe/Prester/Wolfdale / Yorkfield Series with complete accessories Printer – HP Laser Jet Pro, P1102 printer series	4	NA
5. White Board 8'x4'	5	NA
6. Lecture Table L5' x W2.5' x H2.5	6	MOA
7. High-speed Sewing (Single Needle Lockstitch)	7	MOA
8. High Speed Sewing Machines Attachment (Zipper, Edging)	8	MOA
9. 3 Thread Over lock Machine	9	MOA
10. Flat Iron	9	MOA
11. Ironing Board	10	MOA
12. Cutting Table, 4ft x 8ft x 3ft, Formica-topped/smooth surface finished	11	MOA
13. Stools (for laboratory room)	12	A
14. Button Holler Attachment	13	A
15. Hanger Rack	10	MOA
16. Sleeve Board / Ham	15	A

Considering the remaining equipment it could be said that some were moderately available such as lecture table (6), high speed sewing needle (7), high speed sewing machines (8), thread overlack machine (9); and button holer attachment (10). The findings implied that the needed. The only problem was the adequacy when used particularly during the massive activities necessary when all the students world engage in the instructional application for skills development.

Table 11
Adequacy of Materials for Fashion Design

Materials	QTY	DE
1. HB No. 2 Pencil	5	NA
2. Pencil Eraser	5	NA
3. Sketching / illustration Paper, "Oslo", A4 (@100shts/trainee)	1	NA
4. Colored Pencils, 12 colors/set	2	NA
5. Water color (12 color set)	2	NA
6. Paint Brush Set (fine, medium, wide)	2	NA
7. Fabric (textile) Paint, 1L,ea. of primary colors and white	1	NA
8. White Board Marker, (3 colors)	1	NA
9. Illustration Board, 1/8"	20	MA
10. Assorted Fabric Swatches, (natural-animal, plant and synthetic) 1 yard ea.	2	NA
11. Patter paper, 2'x4'	25	VMA
12. Tailor's chalk (white, blue, orange, yellow)	8	MOA
13. Dressmaker's, Tracing Paper	2	NA
14. Thread (6-10 Assorted colors)	8	MOA
15. Buttons, assorted shapes and sizes	7	MOA
16. Zipper, assorted types (e.g. metal, nylon, jacket, invisible or ordinary) and sizes	3	NA
17. Record book	1	NA
18. Different interlining (fusible and non-fusile)	3	NA
19. Different sizes Band Roll and garters	3	NA
20. Hook and Eye (big and small)	2	NA
21. Sewing machine oil	3	NA
22. Needle DBX1 #14	3	NA
23. Needle DCX1 #11	3	NA
24. Needle DPX1 #14	3	NA
25. Needle DPX5 #14	25	VMA
26. Hand needles	45	VMA
27. Fabric for Blouse (Woven)	24	MA
28. Fabric for Skirt (Woven)	20	MA
29. Fabric for Dress (Woven)	20	MA
30. Pins with heads and without heads	25	VMA
31. Assorted trimmings	24	VMA
32. Boxes, assorted types and sizes	20	MA

33. Tissue paper and board inserts	15	A
34. Different adhesive tapes for packaging	16	MOA
35. Garment bag, assorted types and sizes	10	MOA
36. Plastic, assorted types and sizes	10	MOA
37. Assorted Care Label	40	VMA
38. Paper bags, assorted types and sizes	10	MOA
39. Gun tags	20	MA

Table 11 declared that the following materials were much available: Illustration board (20) pattern paper very much available (25), needle (VMA) 25 fabric for blouse (20), fabric for dress (16), muslim (VMA) (40). The findings implied that the were materials that were available when needed only the problem was the quantity that could respond to the needs of the students due to the insufficiency of the said materials. Looking at the table closely it revealed that there were materials that were moderately available such as teachers chalk (8), dressmaker's training paper (7), pins with head, boxes assented types and sizes (10), time paper (10), adhesive tapes (10), garment bag (6) and muslim (40) very much available. The findings implied that the materials were available when needed, however the only problem was the adequacy that may affect the use in performing the practical activities needed.

Table 12 Strengths and weaknesses of the students in the level of learning competencies in Garment, Fashion design.

Table 12 should that all areas or dimension such as create garment design, range variables, evidence, guide, calculate and procure garment, materials; and supervise garment prototype preparation and production were all perceived as their weaknesses. It implied therefore that students failed to acquire the competencies necessary to competently engage in garment fashion and design. Furthermore, teachers failed to address the necessary learning competencies of Industrial Technology Students major in Garments, Fashion and Design. This scenario could be attributed to the adequacy, availability of the tools, equipment, and materials in fashion design apparel.

Proposed Action Plan for Learning Competencies of College Students in Garment Design

Based on the results of the analysis of the extent of Learning Competencies of College Students In Garment Fashion Design, the proposed plan of action is designed.

The proposed action plan has the following components.

1. Areas of Concern
2. Targets / Objectives
3. Activities / Strategies
4. Time Frame
5. Persons / Agencies Involved
6. Budget Estimate
7. Success Indicators

Thus, the proposed action is presented in tabular form in the following pages.



**Proposed Action Plan to Improve or Enhance Learning Competencies of Students In
Garment Fashion Design**

Areas of Concern	Targets	Activities / Strategies	Time Frame	Persons / Agencies Involved	Budget Estimate	Success Indicator

IV. SUMMARY, CONCLUSION and RECOMMENDATION

This chapter presents the results of the discussion of the data gathered using the questionnaire as the tool or instrument relative to the problem on the level of learning competencies of Industrial Technology Students major in Garments, Fashion and Design in Pangasinan State University. There were 50 students involved in the study. The areas covered the create garment design range variables, evidence guide; calculate and procure garment materials and supervision garment prototype preparation and production. It included the availability of tools, equipment, and materials needed in the course to acquire and develop the skills in garment, fashion and design.

Findings

The following were the salient findings:

1. The level of learning competencies of the students were moderate in creation of garment design (1.93) moderate in range variables (1.68), moderate in evidence guide (1.69), moderate in supervise garment prototype preparation and production (1.75).
2. There was no significant difference between the perceptions of the students and instructors in the level of learning competencies of students themselves in garments, fashion and design.
3. Students were generally weak in all areas of garment, fashion and design as revealed by the results of statistical consideration perse.
4. The materials, tools and equipment in Garment, Fashion and Design were moderately adequate and available.

Recommendations

1. The procurement, and enough adequacy of the task, materials and equipment should be attached to provide the needed skills and competencies of the students.
2. Both students and instructors should work together in improving their skills in garments, fashion and design by creating, organizing and promoting schools, institution and competition of the same to raise the standard locally and instructional in the said garment, fashion industry.
3. The Department of BIT should give time and focus in promoting the area of Garment, Fashion and Design in the industrial technology to strengthen the weaknesses.
4. The should improve more tools, materials, and equipment to respond adequacy to the need of the students and instructor in school particularly in training the students and instructor themselves.
5. The proposed action plan shall be informed to the President of the University for use to enhance or improve the skills and level of competence of the students and teachers.

Conclusions

The following conclusions were made based from the findings.

1. The students failed to reach the desired level of learning competencies in all areas of garment, fashion and design in (BIT).
2. Students and instructors had the same level of perception in the level of learning competencies. They didn't contradict each other.
3. The students and instructor were affected by the availability and adequacy of the materials, tools, and equipment in garments, fashion and design.
4. The absence or inadequacy of the materials affected the importance of the students in raising



the level of their competence.

5. The proposed action plan has been designed and proposed to improve and enhance the learning competencies of the students in garments, fashion and design.

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