Education



A STUDY ON THE RELATIONSHIP AMONG HEUTAGOGICAL ATTRIBUTES OF UNDERGRADUATE DESIGN STUDENTS OF **FASHION EDUCATION**

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ABSTRACT

This study sought to explore the relationship among the seven heutagogical attributes of fashion design students namely: Self-motivation; Desire; Self-efficacy; Introspection on approaches, strategies and actions; Introspection on critical thinking, exploration and experimentation; Introspection on values, beliefs and assumptions; and capability development. This is an analysis of secondary data collected for a study of fashion design students' and faculty members' perceptions on "heutagogy" at a Premier National Institution, offering Fashion Design and allied education in the South Asia. The Initial part of the paper briefs about learning culture in fashion institutions and summarizes various means to device the heutagogical attributes in the formal design education through review of existing body of research

Seventy eight (78) undergraduate students of second year from Design streams of Fashion, Textile and Accessory Design were taken as the sample of the study. Descriptive statistical analysis techniques and pearson's correlation were used to analyze the data, based on the means and overall scores of students through SPSS. The obtained students' composite mean scores of heutagogical learning attributes were further correlated to students' career vision, self-assessment, consulting peers for assessment, autonomy in learning, and use of web 2.0 technologies. A significant correlation found between all seven attributes of heutagogy. There was no significant relationship of career vision of students with any of the other study variables. The findings are particularly useful for design students; faculty members; and institutional leaders to enhance the introspection while learning and capability development; effective mentoring; and facilitation of effective education respectively.

KEYWORDS: Heutagogical Attributes, Fashion Education, Self-efficacy, Motivation, Introspection, Capability Development.

1. INTRODUCTION

How well an instructor facilitates and a learner acquires knowledge, skills and attitude in an academic environment mainly depends on the prevailing academic culture. Instruction and learning methods adopted as per the changing needs of society, industry and learner play a dynamic role in the evolution of academic culture. Instruction and learning methods are more dynamic in fashion education because of it's distinguished characteristics like multidisciplinary, interdisciplinary, vocational, varying specializations of admitted students, their backgrounds as accentuated by Reddy (July, 2015). The fashion design, students are prepared on a unique interdisciplinary and multidisciplinary platforms which prepares them to a wide variety of career options and real life challenges. This education should continuously stimulate the academic environment to encourage better learning through expert lectures, seminars, intercollege and intra college competitions, students' displays, classroom projects. Further a range of evaluation comprising of theory and practical exams, power point presentation, displays, portfolio preparations, model makings, jury presentations, hands on experience on live industry projects etc. (Reddy, January 2014) and supporting resources, classroom equipment, lab infrastructure to suit the requirements of students and learning approaches are encompassed in fashion education. Fashion institutions moreover facilitate outbound programs and field visits as a part of their academic activity to encourage motivation, trust and team building among students and faculty. With transnational education linkages these institutions offer opportunities for students to participate in international exchange programs, dual degree programs, competitions, seminars, conferences, research, exhibitions to understand different cultures and to broaden their vision. Having these distinguished features, fashion education has wide scope and opportunities to formally incorporate heutagogical learning to make it more effective (Reddy, 2016). Further, with Web 2.0 technologies learners are self-directed to continue to learn on their own paths in the way they desire (Kuit& Fell, 2010). Appropriate and feasible sources of information and its validity is a challenging task than retrieving of information these days. According to Eberle and Childress (2006) in heutagogical learning approach students have to conduct research, discover, analyse, and evaluate according to their learning requirements through self-determination, where in the teacher predominantly facilitates the learning. In the twenty-first century heutagogical approach may be considered as an optimal approach and has been the natural progression from earlier education methodologies to develop learning capacity in particular (Hase and Kenyon, 2000).

In view of above rationale the present exploratory research study was undertaken to understand correlation among the seven heutagogical attributes and other study parameters based on the students self-perceptions. The seven heutagogical attributes of fashion design students identified in the primary study are: Selfmotivation; Desire; Self-efficacy; Introspection on approaches, strategies and actions; Introspection on critical thinking, exploration and experimentation; Introspection on values, beliefs and assumptions; and capability development (Reddy, 2016). The data collected for a study at a Premier National Institute on heutagogical attributes was considered for this secondary analysis. The study also intended to encapsulate various ways to implement heutagogical attributes

in the learning and instruction.

2. LITERATURE REVIEW

The following secondary research has been done to comprehend the heutagogical attributes and to summarize various findings and how to integratethem in formal design education. According to Blaschke (2012) the motivation of learners and their involvement in the learning process can be improved by negotiation and learner-defined assessment, it further makes learners feel less threatened by instructor control of their learning process (Hase & Kenyon, 2007; Hase, 2009; Ashton & Elliott, 2007; Canning, 2010). Good practices and ideas for teachers to enhance student motivation: Including students in co-creating compelling courses; Exposing students to extremes of the subjectmatter; Making students aware of the different career paths that may be available to them upon completion of their studies; Making students aware of the importance of what they are doing and its context in an applied situation which shows its value to others; Applying their own research to the learning experience of students, questioning used methods and asking for alternatives; and Inviting representatives from society with specific expertise and experiences regarding a field of study or inviting alumni to act as role models, connecting practical and learning experiences in their profession with experiences gained during their study are listed by Attard, Di Iorio et al.(2010). Making students understand the need of present learning with respect to forthcoming subjects prerequisites also develops interest and context. A good start is half done, as cited by Deveci, T. (2014) curiosity can be aroused by using mind teasers at the beginning of classes (Mitchel in Schiefele, 2009) or employing humor about the content matter to come (Lomax and Moosavi, 2002).

Proving opportunities and scope for learner to reflect on life experiences in relation to his or her self-perception, beliefs, and lifestyle will also make learner for introspection. Authentic learning brings significant differences in belief, decision, and behaviours (Knowlton, 2003) through introspection (Parisi, 2009). Authentic learning is a style of real life learning that encourages students to create a meaningful, useful solutions to be shared with their world through engaging all their senses.

Blaschke, Porto, and Kurtz (2010) indicated based on their findings that active use of social media supports cognitive and meta-cognitive skill development. Self-regulated learning incorporates cognitive, motivational and meta-cognitive dimensions and suggests the importance of self-regulatory skills in academic achievement (Zimmerman & Schunk, 2001). Knowles (1975) argued that it is important to create a climate of mutual trust and respect with a clear demarcation of instructor and learner roles and one that supports dialogue. According to Cochrane, Antonczak et al. (2012) in competency based education faculty member role for facilitating an organizational behaviour class is overseeing students learning activities, curative resources in a specific field, building long-term relationships with students, organizing learning resources for students, motivating students and pacing, these methodologies are equally effective for most of the

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Self-motivation is key to developing self-efficacy. In the present context the selfefficacy of student's belief in his capacity to succeed at learning. In a research study conducted by Blaschke, Porto, & Kurtz (2010) students specified that learning through reflection and meta-cognition skills contributed considerably effective than a live classroom sessions. Moon (2006) found in a study that metacognitive skills are developed by learning journals as it makes students uderstand in a slow pace which gives them a stronger sense of ownership by the autonomous learning process. According to Attard, Di Iorio et al. (2010) Peer- and selfassessment both give responsibility back to the student, emphasising an increased sense of autonomy in the learner. As cited by Parisi (2009) not recognizing the quality of students own current skill set lowers interpretation of the work and undermines the student's self-confidence and self-efficacy (Laurillard (1984); Maton et al. (1976); McDonald & Boud (2003)). According to Entwistle et al. (1979) in fear of failure students show a lack of self-efficacy and other selfconstructs too. Reviewing all the above compiled literature the researcher addresses the following exploratory research questions:

- To explore the relationship among the seven heutagogical attributes of fashion design students and its composite mean scores.
- 2) To explore the relationship among the composite mean scores of heutagogical learning to other study parameters viz. career vision, selfassessment, consulting peers for assessment, autonomy in learning, and use of web 2.0 technologies.

3. RESEARCH METHODOLOGY

3.1 Participants

A total of hundred (100) students from one of its fifteen (15)campuses operated across the country by a premier institute were opted as a cluster purposive sampling. These second year undergraduate programme students are chosen from

Fashion, Textile and Accessory Design streams. As it is a secondary study, from the obtained seventy-eight (78) students' questionnaires consisting of 13 male and 65 female, related data of students' self-perception on heutagogical attributes were considered for the study.

3.2 Instrument

Based on the considered important attributes of heutagogical learning of design students and other related parameters the questionnaire was designed for respective cohort of students in the prime study. Each questionnaire had scale rating from null to outstanding (7 rating), which is familiar and widely used scale in the academic grading of the students at the surveyed institution.

3.3 Procedure and Data Analysis

This survey was conducted during November and December 2015. It was delimited to students of Apparel, Textile and Accessory Design in the fifth semester undergraduates (four-year programs). Initially the questionnaires were presented to three students, the procured suggestions were incorporated in the questionnaire to make it easy for participants to understand and reciprocate. An internal consistency was piloted by fifteen students' sample by using Cronbach's Alpha reliability test and an alpha value 0.966 was reported. Descriptive statistical analysis techniques and pearson's correlation were used to analyse the data, based on the mean and overall scores of students through SPSS.

4. RESULTS AND FINDINGS

In order to realize the first objective of the study, the opted data of seventy-eight (78) students were analyzed with descriptive statistics and Pearson's Correlations Coefficients. The result so obtained about seven attributes and composite mean score of heutagogical attributes are presented in the following table-1 and table-2 respectively.

Table-1: The level of students' heutagogical learning perception							
	Minimum	Maximum	Mean		Std. Deviation		
	Statistic	Statistic	Statistic	Std. Error	Statistic		
1. Self-Motivation	2.00	7.00	4.5513	0.12193	1.07688		
2. Desire	3.00	7.00	4.7949	0.12425	1.09733		
3. Self-Efficacy	2.00	7.00	4.6410	0.12101	1.06873		
4. Introspection on approaches, strategies and actions	2.00	7.00	4.4744	0.11645	1.02848		
5. Introspection on critical thinking, exploration and experimentation	3.00	6.00	4.5000	0.10282	0.90812		
6. Introspection on values, beliefs and assumptions	2.00	6.00	4.3333	0.11637	1.02775		
7. Capability	1.00	7.00	4.3077	0.13571	1.19857		
Composite mean score of Heutagogical Attributes	2.57	6.43	4.5147	0.08612	0.76059		

Table-2: Pearson's Correlations Coefficients for the heutagogicalattributes								
	CMSHA	SM	D	SE	IAST	ICTEE	IVBS	C
Composite mean score of Heutagogical Attributes (CMSHA)	1							
1. Self-Motivation (SM)	.698**	1						
2. Desire (D)	.679**	.515**	1					
3. Self-Efficacy (SE)	.685**	.335**	.364**	1				
4. Introspection on approaches, strategies and actions (IAST)	.803**	.501**	.346**	.523**	1			
5. Introspection on critical thinking, exploration and experimentation (ICTEE)	.753**	.485**	.391**	.424**	.616**	1		
6. Introspection on values, beliefs and assumptions (IVBS)	.653**	.278*	.315**	.438**	.465**	.417**	1	
7. Capability (C)	.758**	.390**	.453**	.386**	.594**	.525**	.401**	1

^{**.} Correlation is significant at the 0.01 level (2-tailed).

As it is indicated in table-2, there is a significant correlation among all seven attributes of heutagogy. The levels of all seven heutagogical attributes are found moderate among the design students of fashion education. It was also revealed that all seven attributes are significantly and positively correlated with each other.

In order to realize the second objective of the study, the opted data of seventy-eight (78) students were analyzed with descriptive statistics and pearson's Correlations Coefficients. The result so obtained about the level of students other studied variables are shown table-3 and table-4 respectively.

Table-3: The levels of students' other studied variables							
	Minimum	Maximum	Mean	Std. Deviation			
	Statistic	Statistic	Statistic	Std. Error	Statistic		
1. Career vision	3.00	7.00	4.5256	0.11928	1.05343		
2. Self- assessment	1.00	7.00	4.2051	0.12290	1.08543		
3. Consulting peers for assessment	2.00	6.00	4.1795	0.10442	0.92222		
4. Autonomy in learning	1.00	7.00	3.5641	0.14437	1.27503		
5. Use of web 2.0 technologies	0.00	7.00	4.7692	0.14008	1.23712		
Composite mean score of Heutagogical Attributes	2.57	6.43	4.5147	0.08612	0.76059		

^{*.} Correlation is significant at the 0.05 level (2-tailed).

Table -4: Pearson's Correlations Coefficientsof composite mean score of heutagogical attributes and other studied variables							
	1 (CMSHA)	2 (CV)	3 (SA)	4 (CPA)	5 (AL)	6 (UWT)	
Composite mean score of Heutagogical Attributes (CMSHA)	1						
1. Career vision (CV)	.411**	1					
2. Self- assessment (SA)	.248*	.086	1				
3. Consulting peers for assessment (CPA)	.528**	.156	.365**	1			
4. Autonomy in learning (AL)	.276*	.037	.225*	.288*	1		
5. Use of web 2.0 technologies (UWT)	.430**	.114	.210	.310**	.224*	1	

- **. Correlation is significant at the 0.01 level (2-tailed)
- *. Correlation is significant at the 0.05 level (2-tailed)

The levels of all five studied variables are moderate among the design students of fashion education. There is no significant relationship of career vision with any of the other study variables. Self-assessment and use of web 2.0 technologies also have no predictable relationship with other study variables at 0.01 levels.

5. DISCUSSION AND CONCLUSION

The primary objective of this study is to explore the relationship among the seven heutagogical attributes of fashion design students andits composite mean scores. The results of the study revealed that there is a positive and significant relationship among all seven heutagogical attributes. The first three attributes are positive predictors of later three attributes and all six attributes together are leading to capability development of students. Capability is a holistic attribute and concerns the capacity to use one's competence in novel situations rather than just the familiar (Hase 2002; Stephenson 1994). According to Parisi (2009) curriculum should be designed in a way to conquer self-sufficiency among the students through self-motivation for attaining educational and professional goals. This seems logical as self-motivation, desire and self-efficacy are important human traits to be successful in any activity and the same implies to learning. The levels of all seven heutagogical attributes are found moderate among the design students of fashion education. These attributes needs to be propelled in students and faculty members through enhanced awareness, improved web 2.0 academics literacy and efficient supporting repositories. According to Canning & Callan (2010) reflecting on the learning experiences and relating these experiences to professional practice helped keep learners motivated to learn. Student-centred learning progressively advances meta-cognitive, behavioural, and motivational commitments (Parisi, 2009).

The secondary objective of the study is to explore the relationship among other five studied variables and with composite mean score of heutagogical attributes. The result of the study reveals that Career Vision, Consulting Peers for Assessment and Use of web 2.0 Technologies have positive and significant correlation with Composite mean score of heutagogical attributes. Surprisingly Career vision does not have significant correlation with any of the other study variables; Self-assessment, Consulting Peers for Assessment, Autonomy in Learning, and Use of web 2.0 Technologies. However it has positive and significant correlation with composite score of heutagogical attributes of learning. From this it can be concluded that fashion education has wide scope and opportunities to formally incorporate heutagogical learning. There is a positive and significant relationship among all seven heutagogical attributes. Self-assessment and Autonomy in learning are not the predictors of heutagogical composite mean score and other studied parameters.

6. FUTURE SCOPE OF WORK

The current study conducted only in one province that too based on the students self-perceptions. Similar research can be carried out in more design colleges and provinces to make an overt generalization from other samples and means also. Further much more action research is required to understand the implementation, influence and implications of heutagogical attributes in design education as there is an ample scope. Students' academic performance, geographical and economical back ground and gender are some other specific areas of further study to correlate with composite mean levels of heutagogical attributes. The research possibilities seem endless as heutagogical learning approach has opened many opportunities and necessity in the era of web 2.0 technologies and globalization to prepare design students capable and competent.

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Self-determined learning: Are you ready? - A study of fashion design students' and faculty members' perceptions on "heutagogy"

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Abstract

This is a pioneer study on heutagogical orientation of Fashion Education. Initial portion of this paper summarizes different attributes and need for self-determined learning in the present and future Fashion Design Education by literature review. Subsequent portion analyses the data collected through structured questionnaire to understand the opinions of students and faculty members of Fashion Design and related graduation bachelor programmes about their understanding, present status, web 2.0 technologies and social media usage and orientation towards heutagogical learning. The survey was based on a study conducted through quantitative closed end questions with a scale rating from poor to outstanding (1-7) and the data analysed through descriptive statistics at a Premier National Institution, offering Fashion Design and allied education in South Asia. The findings of this research paper will be useful to orient the students and faculty members towards heutagogical learning; to upgrade the course curriculum of fashion design and related programmes; to make the curriculum deliverance more effective and meaningful; through the learner: more self-responsible; introspective and finally self-determined wherever necessary.

Key word: Fashion education, Heutagogy, Curriculum deliverance, Lifelong learning, Self-Determined learning

1.INTRODUCTION

Education, the teaching and learning process, has traditionally been perceived as a pedagogic; teachercentered approach between the teacher and the learner. Learning is associated with making new links in the brain involving ideas, emotions, and experience that leads to new understanding about self or the world (Hase, 2011). The distinction Knowles (1970) made between how adults and children learn was an important landmark in higher education and the andragogic; self-directed approach has come into the focus. In the rapidly changing world these methods of approaches may be inadequate to prepare the students to survive and develop in the modern communities and workplaces. Fashion design students are not exempted from this.

These days data, information and knowledge are very explicitly and forthwith available wherever we want, with the expediency of mobile, web 2.0, social and digital media. The web 2.0 refers to the second stage of development on the Internet, characterized especially by the change from static web pages to dynamic (usergenerated content) and the growth of social media. Rapid globalisation, high speed internet and their entire consequence has been created a different kind of human race where people need to be more than just competent, in order for them and their organisation to survive and thrive continuously. Self-efficacy, selfconfidence, self-awareness, self-motivation, knowing how to learn, creativity, desire and ability to use competencies in novel as well as in familiar situations are becoming really important than merry knowledge and skills. Having these features heutagogy is a form of self-determined learning, extension to previous approaches and encouraging cultural revival in learning and education. As cited by Hase & Kenyon (2001), Argyris and Schon (1996) made a major contribution to the paradigm shift from pedagogy to heutagogy in their conceptualisation of double loop learning, where learners are highly autonomous, self-determined and emphasis is placed on development of learner capability along with competency.

Reddy (2014) summarized that Fashion Design undergraduates are trained for portfolio working and lifelong learning, which may be the future trend of working for all designers. A portfolio working involves earning ones' own income from a range of sources; one might work on freelance contracts or as a parttime employee for several organizations and may also run a business. Such professional working demands proficient people with required mastery to accept novel challenges they come across in their career as lifelong learners. Based on the findings of a major UK study of graduate destinations titled Creative Graduates Creative Futures, in the contest of fashion design course curriculum for future fashion education, Rouse (2011) advocated that, we need to ensure student have the opportunity to develop a range of creative, intellectual, visual and technical skills and to use both conventional and digital technologies and education which fosters creativity and innovation, demands an approach which gives them time to reflect, to risk take and experiment. Eberle (2013) argued that heutagogy may be considered an outgrowth from andragogy, this is more creative and may lead to alternations in the rules, plans, strategies, or consequences initially related to the problem at hand. During the fifth semester (third year first half) the graduating students are at a transition period from peadegogical learning of knowledge and skills gaining to andragogial cum heutagogical learning of cognative thinking and capability development, with a wide opportunities at micro and macro levels from idea (concept) and media (material) exploration to subject area specialization. The recognized promising aspects of the heutagogical learning and the requirements of fashion design education are parallel. Therefore the need for this investigation was conceived to understand the prevailing practices and opinions among Fashion Design graduating students during the fifth semester of their study on heutagogical learning at a Premier National Institution, offering Fashion Design and allied education in South Asia.

2. LITERATURE REVIEW

Fashion is a vibrant and innovative economic and socio-cultural activity, contributing value at individual, community, corporate and national levels (Rachel, 2012). Fashion education is an interdisciplinary education offering vocational programs at different academic levels involving interdisciplinary and multidisciplinary faculty members. Reddy (2014) emphasized that, in fashion design education, students are required to exercise and develop their creative imagination and synthesize various; art, craft, design and business subjects they learn. It is not required to simply memorize the facts and formulae within a discipline. During the first year students undergo a common Foundation Programme in design, combining students of different disciplines of fashion design. According to the published prospectus of the proposed Fashion Institution the important objectives of this programme are; to provide an overview and orientation to the fashion industry and to provide uniform basic knowledge and skill competencies universal to the discipline of fashion design. Later during the second year the students have been given broad-based competencies generic to fashion design discipline and introduction to industrial knowhow, processes and materials respective to their chosen specialization. Subsequently during the third year they build on learning of the previous two year, by strengthening and concentrating on departmental specialization. Finally focus is on generating exposure to the complexities and nuances of various segments of related Industry.

Most of the available studies and literature on heutagogy were mainly focused on adult learning as continuous education, distance education, open learning or corporate vocational training programs and are published by Albon (2006), Anderson (2010), Blaschke (2012), Cochrane & Antonczak (2013), Hase (2011), Mundhe & Herkal (2013), Palaiologos (2011). Only a few others including Hase (2011) were researched or applied these principles to formal education also. According to Eberle (2013) heutagogy and andragogy can be effectively used for elementary, secondry and adult learneres. According to Eberle and Childress (2006), in the heutagogical approach to learning, the

teacher serves as the facilitator allowing students to inquire research, discover, analyse, and evaluate according to their needs and what is being studied. As cited by Eberle (2013), Hase and Kenyon (2000) claim that heutagogy, may be viewed as a natural progress from earlier educational methodologies in particular from capacity development and may well prove the optimal approach to learning in the twenty first century. Fashion Design students can determine their learning opportunities in terms of electives, product development, product design, colloquium module, partners for group tasks, mediums for exploration and presentation, approaches for execution, industries for internship, tools and machinery for making products, locations for field and crafts revision visits etc.. Fashion Design students can self-determine their learning options during the formal learning based on their career vision and future planning; likewise of real-life occupational experience considered for relating in continues education of adult learning.

Reviewing all the above mentioned literature reveals, though heutagogical learning mainly linked with experienced adult learning and also has a scope in all stages of education. Fashion education has wide scope and opportunities to formally incorporate heutagogical learning to make it more effective. Moreover no specific study was found, to the best knowledge of the researcher, in the existing literature relating to heutagogical approach in fashion education. Hence the researcher addresses the following specific questions:

(1)What are the important attributes of heutagogical learning related to Fashion Design students?

(2)What is the perception of students' and faculty members' status on these attributes related to Students Learning, Curriculum Scope and Faculty Members Encouragement?

(3)What is the present status of web 2.0 technologies and social media usage for heutagogical orientation in Fashion Design Education?

The study was also aimed to create inquisitiveness among participated students, faculty members and also proliferate heutagogical aspects across fashion education fraternity. This will help the students as they undergo product specialization, industrial internships and consolidation based on research and innovation to acquire professional competencies during the later portions of their remaining program.

3. ATTRIBUTES OF HEUTAGOGY FOR FASHION EDUCATION

Motivation and desire are the emotional commitment to learning wich make the heautagogical approach so highly successful (Kenyon & Hase, 2013). These are the two very important factors for acomplishing any thing including learning. In order to get motivated, students need to know exactly what it is that they want, to possess, a strong desire, and to be willing to do whatever it takes to accomplish their career goals. Hence the clarity on their career goals is an important and reference point for students. Where as experienced trainees refer with their life experience and future requirement to get desire and motivation. As the fashion students have enarmous opportunities within their selected field like Fashion Desing graduates have career options as designers, freelancers, design consultants, design managers, stylists, exhibition and visual display experts, forecasting and fashion trends forum organizers, costume designers, illustrators, pattern engineers and entrepreneurs. Textile Desing students have wide range of careers in textile mills, export houses, trends and forecasting, styling, fashion design studios, design studios, buying houses, handloom cooperatives and buying agencies as design or fabric managers or work independently as designers or entrepreneursand. Like wise Accessory Design students can become brand managers, visual merchandisers, product managers and entrepreneurs in broad areas of precious and costume jewellery, leather goods, giftware, tableware, watches, footwear, handicrafts and lifestyle products. The first two attributes identified for the study were motivation and desire for learning.

According to the Kenyon & Hase (2001), an heutagogical approach recognize the need to be flexible in the learning, where the teacher provides resources

but the learner designs the actual course he or she might take by negotiating the learning. Reflective practice is essential, it is not always easy to find the space and time to be reflective, and being reflective means examining personal values and beliefs which can sometimes be challenging to rationalize (Canning, 2013). Double-loop learning also involves self-reflection on the individual learning process, reflection on what has been learned and how it has been lerned (Balschke, 2013). In the double loop heutagogical learning there are second loop components to the first loop of formal subject knowledge and skills. According to Hase, & Kenyon (2007), knowledge and skills or competencies can be acquired and even reproduced, but learning is an integrative experience where a change in behaviour, knowledge, or understanding is incorporated into the persons' existing repertoire of behaviour and schema (values, attitudes and beliefs). Hence the next three attributes identified were; introspection of values, beliefs and assumptions; introspection of approaches, strategies and actions based on the opportunities available in each stage of learning, similarly another reflective attribute while learning is introspection on critical thinking, exploration and experimentation.

In view of course requirement Fashion Design students undergo a subject on creative skills during the first year and other subjects on cognative thinking and design process during second year of their studies. Stephenson and Well (1992) described (as cited by Ederle, 2013) capable people are those who know how to learn; are creative; have a high degree of selfefficacy; can apply competencies in novel as well as familiar situations; and can work well with others. From this the two other inportant attributes considered for the study were self-efficacy and overall capability development. According to Tray (2013) circles and donuts illustrations, individuals' knowledge gain varies respectively in the three stages of pedagogy, andragogy and heutagogy are ability to seek out commonsense facts and initial refined knowledge; ability to construct an abstract model and; ability to seek out new knowledge associated with 'deliberate open gap' respectively.

From the above literature review and the

requirements of the Fashion Design programs, the Identified seven significant heutagogical attributes, in students learning, as per the first and primary objective of the study were 1) Self-motivation, 2) Desire, 3) Self-efficacy, 4) Introspection on approaches, strategies and actions, 5) Introspection on critical thinking, exploration and experimentation, 6) Introspection on values, beliefs, assumptions, 7) Capability development.

Web 2.0 technologies support double-loop learning by providing an environment in which learner can connect with each other using a variety of platforms from social networking tools. Web 2.0 design supports a heutagogical approach by allowing learners to direct and determine their learning path and by enabling them to take an active rather than passive role in their individual learning experiences (Blaschke, 2012). Hence the added important aspect of this study was use of web 2.0 technologies and social media in learning, research and subject evaluation.

4. RESEARCH METHODOLOGY

4.1 Participants

A survey study was adapted for this research at a Premier National Institution in South Asia. This Institution has been offering fashion and allied design education for more than a quarter century. 78 students and 16 faculty members' questionnaires were finally considered. A total of 100 students and 18 faculty members from one of its 15 campus operated across the country by this premier institution was considered as a cluster purposive sampling.

4.2 Instrument

Based on the identified important seven attributes of huetagogical learning in the study two questionnaires were designed for respective cohort of students and faculty members. Each attribute was questionned to students and faculty members, in three aspects; Students Eminence, Faculty Members' Encouragement and Curriculum Scope. Each questionnaire had fourty five questions with scale rating from poor to outstanding (1 to 7), which is familiar and widely used scale in the

acadamic grading of the students and faculty members at the surveyed institution.

4.3 Procedure and Data Analysis

This survey was conducted during November and December 2015. It was delimited to students and faculty members of Apparel, Textile and Accessory Design in the fifth semester bachelor (four year) programs. Initially the questionarries were presented to three students and two faculty members, the procured suggestions were incorporated in the opinionnaires to make it easy for participants to understand and reciprocate. An internal consistency was piloted by fifteen students' sample by using Cronbach's alpha reliability test and an alpha value 0.966 was obtained, it falls under excellent category as per general standards. The data processed through descriptive statistics through SPSS software and important results are presented in tables and graphs.

5. RESULTS AND FINDINGS

In order to realize the second objective of the study, the data was analyzed with descriptive stastistics. Mean values of students and faculty members' perceptions on the seven attributes of students learning were computed. The computed mean values were on the scale of 1-7 and were converted to percentages (%) so as to make it easy to understand and compare. The related results obtained are presented in the following Figure-1, as a clustered bar chart. It was sensed acceptable, only because the obtained data of each attribute was mostly matched with normal standard deviation curve, by the researcher.

The result revealed that the students were having moderate to good levels of heutagogical orientation as per theirs' and faculty members' perception. Few other important observations from the figure-1 are; students perception ratings are higher then faculty members only except in the capability development; compared to the students perception the faculty members have rated more in the 'capability' of students; out of all attributes the highest mean percentage obtained by students is 'desire'

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and for the faculty members it is 'capability rating'. In the global world fashion professional must come together to solve problems and fashion education to facilitate the students to become capable to effectively address novel challenges at global level.

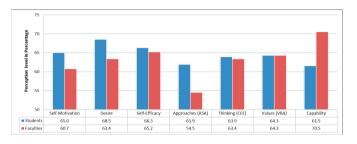


Figure 1. Fifth semester graduating students' heutagogical attributes

The attributes; approaches, strategies and actions; critical thinking, exploration and expermentation; values beliefs and assumptions are abbreviated as Approaches (ASA); Thinking (CEE); and Values (VBA) respectively in Figure-1 and Figure-2.

To understand the perception of the students on heutagogical attributes; about self, curriculum scope and faculty members' encouragement, the mean percentages were represented in a radar chart as figure-2 below.

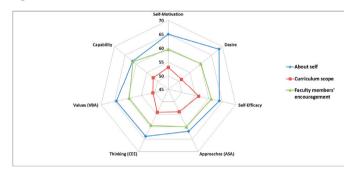


Figure 2. Perception of students on heutagogical attributes about self, faculty members encouragement and curriculum scope

Some of the important observations from the figure-2 are; the students have rated their self-levels were highest compared to faculty members' encouragement or curriculum scope; despite of the less scope in the curriculum for 'desire' students are maintaining highest levels compared to all other attributes; 'approaches, strategy and actions' attribute was found very low rated. In the heutagogical approach it is not desired for a faculty member to teach everything, students must take

responsibility for learning with determination, desire and motivation.

To realize the third objective of the study the availability status of five electronic gadgets and their usage for various applications with web 2.0 technologies and social media were compiled in Table-1 and Table-2 respectively.

Table 1. Availability of electronic gadgets with students and faculty members

,	Desktop PC	Laptop -	Tablet -	Smart phone	Smart TV
Students - Faculty members -	17% - 88% -	91% ³	24% J 63% J	67% J	5% - 44% -

Some of the important interpretations from the Table-1 are; 88% of faculty members possessing desktops at highest level and on an average they have three gadgets at their usage; 91% percentage of students possessing laptops at highest level and on an average they have two gadgets at their usage.

Table 2. Students and faculty members usage of electronic gadgets in different applications

-	Non-Academic	Academic -					
	Tron-readenne	Basics -	Research -	Evaluation -			
Students -	66% -	65% -	68% -	63% -			
Faculty members	67% -	69% -	73% -	68% -			

From Table-2 some of the interpretations concluded are as follows; more or less students and faculty members are using electronic gadgets and web 2.0 technologies in the same level for academic and non-academic purposes. The highest rated usage was found for Academic Research by both the faculty members and students.

6. CONCLUSIONS AND RECOMMENDATIONS

Heutagogy is not merely an alternative to pedagogy and andragogy, for instance it is a continuum to the said previous approaches for effective and productive learning in the rapidly growing era of web 2.0 and high speed digital age. The Fashion Design student participants were found to have a moderate to good level of application for heutagogal learning despite of any formal education on heutagogy and its application. By formally introducing heutagogical attributes these

levels can be perceptually improved. Most of the students and faculty members are having more than one electroic gadget and adequate infrastructural support to use them for acadamic purposes through web 2.0 technologies and social media. Faculty members should concern themselves with developing the students' capability, not by just embedding discipline-based skills and knowledge. Further faculty members should be resource developers, facilitators, coaches, motivators, good listeners, persuaders and communicators in direct and digital media. Heutagogy provides enormous satisfiction and psycological enrichment for both students and faculty members.

As nicely quoted by the former First Lady of the United States from March 1933 to April 1945, Mrs. Eleanor Roosevelt, "Great minds discuss ideas, average minds discuss events and small minds discuss people". In the future the Fashion educations' major responsibility will be to create intellectual curiosity, introspection and engage students psychology to develop creative ideas and products to suit global needs.

7. FUTURE SCOPE OF WORK

The future scope of this study would be to establish correlation of the present study findings to socioeconomic back ground and academic grades of the students, if any, by secondary or meta-analysis. Action research is another emerged scope from this study to check the identified heutagogical attributes influencing on fashion design students and in preparing them for career endeavours and novel challenges.

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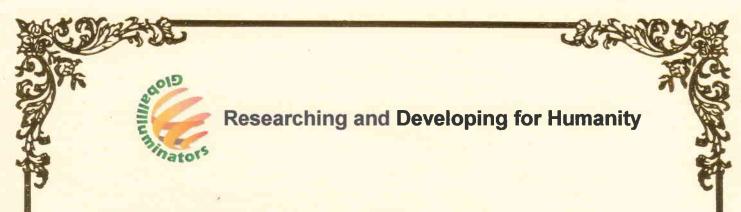
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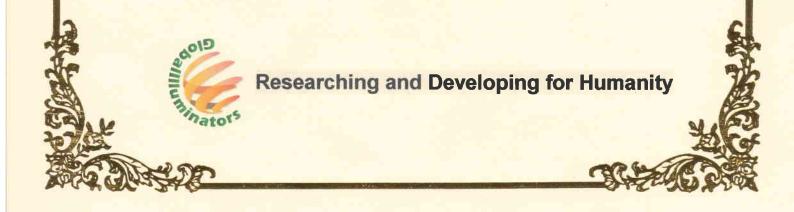
Certificate of Presentation

This is to certify that

Chiranjeevi Reddy Gudimetla

Presented the research paper titled "Management of Inter-Disciplinary Undergraduate Design Curriculum: A Case Study At National Institute of Fashion Technology, Hyderabad, India." in the 6th international conference "Innovation Challenges In Multidisciplinary Research & Practice (ICMRP-2018)" held at Hotel Grand Pacific Singapore on December 15-16, 2018.

Dr. Farooq Ahmed Jam (Ph.D.)
Conference Chair
ICMRP-2018 Secretariat
Executive Director
Global Illuminators





Certificate of Presentation

Hong Kong International Conference on Education, Psychology and Society

National Institution of Fashion Technology Chiranjeevi Reddy Gudimetla December 18-20, 2018 Hong Kong

Has attended the conference and presented a paper entitled

A Study of Self-efficacy Among the Graduate Students of Fashion Education in India

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