Human Dynamics, Product Evaluation and Quality, Vol. 212, 2026, 44–55
https://doi.org/10.54941/ahfe1007812

Ergonomics and Human Factors Awareness Among Textile and Fashion Design Department Students

Özlem Kaya

Uşak University Faculty of Fine Arts, Uşak, 64200, Turkey

ABSTRACT

It has become a necessity for students to know the basic concepts of ergonomics and work physiology, and to be knowledgeable about ergonomic arrangements and work environment designs in the workplace, as they will play an active role in the future of working life. In this context, ergonomics knowledge is extremely important, especially for the textile and fashion industry, which plays a significant role in the economic development of countries and is one of the most labor-intensive sectors. Since textile and fashion design education requires intensive manual dexterity, prolonged sitting, standing, and repetitive movements, the concept of ergonomics is of great importance to students. Ergonomics awareness refers to students' ability to properly organize their work environments, equipment use, and body posture in terms of health, productivity, and comfort. Studies show that students who lack sufficient knowledge of ergonomics more frequently experience problems such as musculoskeletal disorders, fatigue, and loss of concentration. Conversely, students with high ergonomic awareness show increased work performance, reduced physical strain, and the prevention of long-term occupational health risks. Therefore, integrating ergonomics awareness into the curriculum of textile and fashion design education is considered an important requirement for instilling healthy work habits at an early age. In this context, the aim of this study is to determine the knowledge, attitudes, and awareness levels of textile and fashion design students regarding ergonomics. Within this scope, data was collected using a scale designed to determine students' ergonomic awareness levels, and their awareness status was revealed.

Keywords: Textile and fashion industry, Ergonomics, Ergonomics awareness, Job analysis, Textile and fashion education

INTRODUCTION

Ergonomics is an interdisciplinary field that refers to the design of work and products that are suitable for the physical and psychological capacities of humans. Understanding this field is extremely important for many sectors. One of these sectors, and one of the leading fields in the world, is the textile and fashion industry.

Individuals working in the field of textile and fashion design encounter tasks that require prolonged sitting, repetitive hand movements, and intense visual attention, especially in production processes and design activities. This situation causes problems such as musculoskeletal disorders, eye strain, and a decrease in overall work performance.

Received February 6, 2026; Revised March 28, 2026; Accepted April 17, 2026; Available online July 20, 2026

Ergonomics, as a branch of science aiming at designing work and products suitable for the physical and cognitive capacities of humans, plays a critical role in preventing these problems. Raising ergonomic awareness during the education process contributes to students both protecting their own health and designing user-oriented, safe, and comfortable products (Khalid et al., 2020; Koca and Kaya, 2018; Gunning et al., 2001).

In this context, ergonomic awareness is critically important for students to both protect their own health and ensure that the products they design are user-friendly. Studies show that design students have limited ergonomic awareness, mostly confined to theoretical education. Ergonomic knowledge and applications can be strengthened through in-class training, workshop applications, and simulations in production processes.

Increasing ergonomic awareness contributes to students developing user-oriented and health-safe products in their design processes. Furthermore, ergonomic habits acquired early in life support students in protecting themselves against occupational diseases in their later professional lives. Therefore, integrating ergonomics-focused modules into textile and fashion design education programs will improve both the quality of education and the sustainability of sectoral practices (Kaya and Özok, 2017; Kaya and Romanescu, 2020).

Zunjic et al. (2015), in their article titled "The Role of Ergonomics in Improving the Quality of Education," discuss how ergonomics can contribute to improving the quality of education. Various aspects of applying ergonomics to improve the quality of education from a global perspective are discussed. Several key areas where ergonomics can contribute to improving the quality of student education are identified. It is concluded that the results of ergonomic research in this field provide a good starting point for creating appropriate ergonomic design solutions aimed at solving existing problems in this area.

Textile and fashion design education is a multidisciplinary process where students develop both their creative and technical skills. During this process, students are exposed to long design sessions, intensive drawing and sewing work, and repetitive movements in workshop environments. These are the processes they are subjected to during their education. Developing an ergonomic awareness and understanding is only possible with the correct knowledge of ergonomics. After graduation, students face even more intense situations in their professional lives. University students and young people entering the industrialized labor market face many challenges. Perhaps the most striking of these challenges is the speed of change and the changing working conditions themselves. The pace of technical, social, and physical transformation is increasing according to many criteria. This brings with it new realities and new opportunities.

Research shows that simply working in an ergonomic environment is not enough to reduce health problems and improve work performance. Even if the work environment is not ergonomic, problems are reduced when employees have knowledge and awareness of ergonomics (Robertson et al., 2008; Ayanoğlu, 2007).

In this respect, in addition to the education students receive during textile and fashion design training, these trainings should be repeated and sustained in

their professional lives. Training is preferred in creating ergonomic awareness in the work environment because it is easy, applicable, and low-cost (Lahiri et al., 2005). The aim of these trainings is to create ergonomic awareness and develop safe and ergonomically optimal work behaviors during work activities. The content of the training includes topics such as musculoskeletal disorders, risk factors, early diagnosis and treatment, ergonomic risk factors and solutions, developing healthy lifestyle behaviors and habits, ergonomics within the scope of preventive measures, proper posture use and principles, body use with biomechanical principles, exercises, and physical activity approaches (Stankovic and Johnell, 1995; Bernacki et al., 1999; Berry, 2009; Amell and Kumar, 2001; Silverstein and Clark, 2004).

Recent studies on ergonomics have revealed that students' awareness of ergonomics is limited and mostly remains at a theoretical level. This situation demonstrates the necessity of increasing ergonomics-focused practices in educational programs. In this context, ergonomics training is seen as extremely important in ensuring ergonomics awareness in textile and fashion design departments, both during education and after transitioning to working life.

This study aims to evaluate the ergonomics awareness of textile and fashion design students and to offer suggestions for developing ergonomic awareness in the educational process.

METHOD

This research was conducted using a quantitative research method, specifically a survey (descriptive) model, to determine the ergonomics awareness levels of textile and fashion design students. The survey model (Karasar, 2005; Creswell, 2017) is a suitable approach for research aiming to present the current situation as it is.

Research Population and Sample: The population of the research consists of students studying in the Textile and Fashion Design Department of the Faculty of Fine Arts at a university. The sample consists of a total of 98 students selected voluntarily from the population and studying at different class levels. Convenience sampling method was used in sample selection.

Data Collection Tool: A two-part interview and questionnaire form was used as the data collection tool in the research. The first part included demographic information such as gender, age, and class level of the students. In the second part, the Ergonomics Awareness Scale, prepared in accordance with the literature, was used to measure the ergonomics awareness levels of the students. The scale consists of sub-dimensions such as work environment layout, posture habits, equipment use, and ergonomic knowledge level, and was evaluated using a 5-point Likert scale.

The validity and reliability process of the Ergonomics Awareness Scale was conducted in multiple stages to support the scientific robustness of the study. First, to ensure content validity, the opinions of expert academics in the field were consulted, and the scale items were evaluated within the context of ergonomics and design education, and necessary adjustments were made.

To examine construct validity, Exploratory Factor Analysis (EFA) was applied to the obtained data. Before the analysis, the suitability of the dataset

for factor analysis was evaluated using the Kaiser-Meyer-Olkin and Bartlett Sphericity Tests; it was determined that the KMO value was above the acceptable level and the Bartlett test was significant, indicating that the data was suitable for factor analysis. According to the EFA results, the scale was found to have a factor structure that addresses ergonomics awareness in a multidimensional way. The factor loadings of the items were within acceptable limits, and cross-loading problems were limited. The total explained variance ratio is at a level considered sufficient for social sciences. The reliability of the scale was evaluated using Cronbach's Alpha, the internal consistency coefficient. The analysis revealed that the overall Cronbach's Alpha value of the scale was high ($\alpha = 0.86$), and the alpha values calculated for the sub-dimensions were also above acceptable limits.

Data Collection Process: Data was collected through face-to-face interviews with students by the researcher. Before the survey, the purpose of the research was explained to the participants, and voluntary participation was the basis.

Data Analysis: The collected data was analyzed using statistical analysis software. Descriptive statistics such as frequency, percentage, mean, and standard deviation were used in the analysis of the data.

RESULTS

This section presents the data obtained from this study, which was prepared to reveal the ergonomics awareness of textile and fashion design students. When the demographic information of the students regarding gender, age, and class was examined, it was found that 80% were female and 20% were male, 96% were between 18-24 years old, and 4% were between 25-34 years old. Furthermore, when the data regarding their class level was examined, it was concluded that 53% were in the 2nd year and 47% were in the 1st year.

In the study, the ergonomics awareness of students who took an ergonomics course and those who did not was compared using a questionnaire administered to two groups. This situation is discussed under four main headings in Tables 1 and 2.

Table 1 presents the students' ergonomics awareness under two main headings.

Table 1. Students' awareness of ergonomics (A-B).

Questions	Rating	N		%	
Awareness of The Working Environment and Equipment		**TFD**	**CEC**	**TFD**	**CEC**
I pay attention to whether the height of my desk is appropriate for my body dimensions	Strongly Disagree	3	2	6,12	4,08
	Disagree	3	2	6,12	4,08
	Undecided	3	4	6,12	8,16
	Agree	22	25	**44,90**	**51,02**
	Strongly Agree	18	16	**36,73**	**32,65**

(Continued)

Table 1: Continued.

Questions	Rating	N		%	
Awareness of The Working Environment and Equipment		**TFD**	**CEC**	**TFD**	**CEC**
I know that the lumbar and back support of the chair I use is important	Strongly Disagree	4	1	8,16	2,04
	Disagree	1	2	2,04	4,08
	Undecided	4	2	8,16	4,08
	Agree	20	21	**40,82**	**42,86**
	Strongly Agree	20	23	**40,82**	**46,94**
I am aware that lighting affects work efficiency	Strongly Disagree	4	2	8,16	4,08
	Disagree	2	1	4,08	2,04
	Undecided	1	2	2,04	4,08
	Agree	18	14	**36,73**	**28,57**
	Strongly Agree	24	30	**48,98**	**61,22**
I take care to create an organized working area in the workshop or classroom environment	Strongly Disagree	4	1	8,16	2,04
	Disagree	1	2	2,04	4,08
	Undecided	5	2	10,20	4,08
	Agree	23	23	**46,94**	**46,94**
	Strongly Agree	16	21	**32,65**	**42,86**
I think that environmental conditions (temperature, lighting, space) affect my health during long-term work	Strongly Disagree	3	0	6,12	0,00
	Disagree	2	0	4,08	0,00
	Undecided	0	4	0,00	8,16
	Agree	22	17	**44,90**	**34,69**
	Strongly Agree	22	28	**44,90**	**57,14**
B- Posture and Physical Awareness					
I am aware of correct sitting and standing postures while working	Strongly Disagree	3	2	6,12	4,08
	Disagree	3	1	6,12	2,04
	Undecided	4	7	8,16	14,29
	Agree	23	21	**46,94**	**42,86**
	Strongly Agree	16	18	**32,65**	**36,73**
I know that incorrect posture may lead to physical discomfort over time	Strongly Disagree	3	0	6,12	0,00
	Disagree	3	0	6,12	0,00
	Undecided	1	0	2,04	0,00
	Agree	17	21	**34,69**	**42,86**
	Strongly Agree	25	28	**51,02**	**57,14**
Questions	**Rating**	**N**		**%**	
Awareness of The Working Environment and Equipment		**TFD**	**CEC**	**TFD**	**CEC**

(Continued)

Table 1: Continued.

I pay attention to not remaining in the same position for a long time	Strongly Disagree	4	1	8,16	2,04
	Disagree	4	3	8,16	6,12
	Undecided	7	3	14,29	6,12
	Agree	20	25	**40,82**	**51,02**
	Strongly Agree	14	17	**28,57**	**34,69**
I notice tension in my shoulders, neck, and lower back during work.	Strongly Disagree	4	0	8,16	0,00
	Disagree	2	0	4,08	0,00
	Undecided	1	5	2,04	10,20
	Agree	21	19	**42,86**	**38,78**
	Strongly Agree	21	25	**42,86**	**51,02**
When I feel physical strain, I try to correct my posture.	Strongly Disagree	5	0	10,20	0,00
	Disagree	3	0	6,12	0,00
	Undecided	2	0	4,08	0,00
	Agree	20	24	**40,82**	**48,98**
	Strongly Agree	19	25	**38,78**	**51,02**

TFD = Textile and Fashion Design (students who have not taken an ergonomics course)
CEC = Common Elective Course (students who have taken an ergonomics course)

When Table 1 is examined, it is seen that the ergonomics awareness of the students participating in the study is addressed under two main headings: awareness of the working environment and equipment, and postural and physical awareness.

Under the main heading of awareness of the working environment and equipment in Table 1, when the responses "agree" and "strongly agree" are evaluated together, it is observed that 81.63% of the TFD group and 83.67% of the CEC group agreed with the statement "I pay attention to whether the height of my desk is appropriate for my body dimensions." For the statement "I know that the lumbar and back support of the chair I use is important," 81.64% of the TFD group and 89.80% of the CEC group expressed agreement. Regarding the statement "I am aware that lighting affects work efficiency," the agreement rates were 85.71% for the TFD group and 89.79% for the CEC group. The statement "I take care to create an organized working area in the workshop or classroom environment" was agreed upon by 79.59% of the TFD group and 89.80% of the CEC group. Finally, 89.80% of the TFD group and 91.83% of the CEC group agreed with the statement "I think that environmental conditions (temperature, lighting, space) affect my health during long-term work."

When these items, defined as group A, are evaluated together, it can be stated that both groups demonstrate a high level of ergonomics awareness regarding the working environment and equipment. In this context, it is possible to conclude that both students who have taken an ergonomics course and those who have not possess ergonomics awareness concerning the suitability of the working environment and equipment. As is well known, ergonomics is a scientific discipline that examines the interaction between

humans and the equipment and environments they use, aiming to enable these interactions to be maintained in the most effective way. From this perspective, students' awareness of ergonomics is extremely important for their future professional lives.

Under the main heading of postural and physical awareness in Table 1, the responses indicate that 79.59% of both the TFD and CEC groups agreed with the statement "I am aware of correct sitting and standing postures while working." For the statement "I know that incorrect posture may lead to physical discomfort over time," 85.71% of the TFD group and 100% of the CEC group expressed agreement. The statement "I pay attention to not remaining in the same position for a long time" was agreed upon by 69.39% of the TFD group and 85.71% of the CEC group. In addition, 85.72% of the TFD group and 89.80% of the CEC group agreed with the statement "I notice tension in my shoulders, neck, and lower back during work." Lastly, 79.60% of the TFD group and 100% of the CEC group agreed with the statement "When I feel physical strain, I try to correct my posture."

When the items under the postural and physical awareness heading, defined as group B, are evaluated collectively, it is evident that both students who have received ergonomics education and those who have not possess ergonomic awareness and demonstrate high levels of postural and physical awareness. Although the majority of the textile and fashion design students are first-year students and have not taken an ergonomics course, they exhibit high levels of awareness under both main headings. Considering that the total score obtainable from the scale ranges from 20 to 100, with higher scores indicating higher ergonomics awareness, it can be concluded that both groups generally have a high level of ergonomics awareness. (The total score obtainable from the scale is between 20-100. A higher score indicates a high level of ergonomics awareness.)

Table 2: Students' awareness of ergonomics (C-D).

Questions	Rating	N		%	
C- Equipment and Tool Use		**TFD**	**CEC**	**TFD**	**CEC**
I take care to use scissors, sewing machines, and other equipment ergonomically	Strongly Disagree	6	2	12,2	4
	Disagree	1	1	2	2
	Undecided	6	4	12,2	8,1
	Agree	23	26	47	53,4
	Strongly Agree	13	16	26,5	32,5
I know that improper use of equipment may negatively affect hand and wrist health.	Strongly Disagree	4	0	8,1	0,0
	Disagree	2	0	4	0,0
	Undecided	2	3	4	6,1
	Agree	24	22	49	44,9
	Strongly Agree	17	24	34,8	49

(Continued)

Table 2: Continued.

Questions	Rating	N		%	
C- Equipment and Tool Use		**TFD**	**CEC**	**TFD**	**CEC**
I pay attention to whether work tools are suitable for my hand and body.	Strongly Disagree	4	0	8,1	0,0
	Disagree	2	2	4	4
	Undecided	1	3	2	6,1
	Agree	25	22	51	44,9
	Strongly Agree	17	22	34,8	44,9
I am aware that repetitive movements may lead to health problems	Strongly Disagree	3	0	6,1	0,0
	Disagree	2	0	4	0,0
	Undecided	2	2	4	4
	Agree	24	28	49	57,1
	Strongly Agree	18	19	36,8	38,8
I consider safety and comfort together when using equipment.	Strongly Disagree	5	1	10,2	2
	Disagree	2	2	4	4
	Undecided	5	4	10,2	8,1
	Agree	23	23	46,9	46,9
	Strongly Agree	14	19	28,6	38,9
D- Ergonomic Knowledge and Attitudes					
I think that the concept of ergonomics is important for occupational health.	Strongly Disagree	3	0	6,1	0,0
	Disagree	3	1	6,1	2
	Undecided	3	2	6,1	4
	Agree	21	16	42,8	32,6
	Strongly Agree	19	30	38,8	61,3
Ergonomic knowledge increases efficiency in the design process.	Strongly Disagree	4	0	8,1	0,0
	Disagree	2	1	4	2
	Undecided	5	2	10,2	4
	Agree	20	16	40,8	32,6
	Strongly Agree	18	30	36,8	61,3
I think that receiving education on ergonomics is necessary.	Strongly Disagree	3	1	6,1	2
	Disagree	3	0	6,1	0,0
	Undecided	5	1	10,3	2
	Agree	19	17	38,7	34,6
	Strongly Agree	19	30	38,7	61,3
I believe that ergonomic working habits will be beneficial in my professional life.	Strongly Disagree	3	1	6,1	2
	Disagree	2	0	4	0,0
	Undecided	4	1	8,1	2
	Agree	20	13	40,9	26,5
	Strongly Agree	20	34	40,9	69,4

(Continued)

Table 2: Continued.

Questions	Rating	N		%	
D- Ergonomic Knowledge and Attitudes		**TFD**	**CEC**	**TFD**	**CEC**
I think that my ergonomics awareness has improved over time.	Strongly Disagree	3	1	6,1	2
	Disagree	3	0	6,1	0,0
	Undecided	3	1	6,1	2
	Agree	24	18	48,9	36,7
	Strongly Agree	16	29	32,7	59,2

TFD = Textile and Fashion Design (students who have not taken an ergonomics course) CEC = Common Elective Course (students who have taken an ergonomics course)

When Table 2 is examined, it is seen that the ergonomics awareness of the students included in the study is presented under the headings of equipment and tool use and ergonomic knowledge and attitudes.

Under the main heading of equipment and tool use in Table 2, when the responses "agree" and "strongly agree" are evaluated together, it is observed that 73.5% of the TFD group and 85.8% of the CEC group agreed with the statement "I take care to use scissors, sewing machines, and other equipment ergonomically." For the statement "I know that improper use of equipment may negatively affect hand and wrist health," 83.8% of the TFD group and 93.9% of the CEC group expressed agreement. Regarding the statement "I pay attention to whether work tools are suitable for my hand and body," 85.8% of the TFD group and 89.8% of the CEC group agreed. The statement "I am aware that repetitive movements may lead to health problems" was agreed upon by 85.8% of the TFD group and 95.9% of the CEC group. Lastly, 75.5% of the TFD group and 85.8% of the CEC group agreed with the statement "I consider safety and comfort together when using equipment."

When these items, defined as group C, are evaluated collectively, the high scores indicate that ergonomics awareness regarding equipment and tool use is high in both groups. In this context, it can be stated that both students who have taken an ergonomics course and those who have not possess ergonomic awareness in terms of equipment and tool use.

Under heading D in Table 2, which presents data related to students' ergonomic knowledge and attitudes, it is observed that 81.6% of the TFD group and 93.9% of the CEC group agreed with the statement "I think that the concept of ergonomics is important for occupational health." For the statement "Ergonomic knowledge increases efficiency in the design process," agreement rates were 77.6% for the TFD group and 93.9% for the CEC group. The statement "I think that receiving education on ergonomics is necessary" was agreed upon by 77.4% of the TFD group and 95.9% of the CEC group. In addition, 81.8% of the TFD group and 95.9% of the CEC group agreed with the statement "I believe that ergonomic working habits will be beneficial in my professional life." Finally, 81.6% of the TFD group and 95.9% of the CEC group agreed with the statement "I think that my ergonomics awareness has improved over time."

When the items under group D are evaluated together, the high scores indicate that ergonomics awareness is high in both groups. In this context, it can be concluded that both students who have received ergonomics education

and those who have not possess awareness regarding ergonomic knowledge and attitudes.

When Table 2 is evaluated in comparison with Table 1, it is observed that students' ergonomics awareness remains consistently high across all dimensions, while certain differences emerge between general environmental–postural awareness and more practice-oriented dimensions such as equipment use and ergonomic attitudes.

In Table 2, under the heading of equipment and tool use, when the responses "agree" and "strongly agree" are considered together, 73.5% of the TFD group and 85.8% of the CEC group reported that they take care to use scissors, sewing machines, and other tools ergonomically. Compared to the findings in Table 1, where both groups demonstrated very high awareness regarding the working environment and posture, these slightly lower rates—particularly in the TFD group—suggest that translating general ergonomic awareness into tool-specific practices may be more challenging. Nevertheless, high levels of agreement were observed for statements related to awareness of health risks, such as knowing that improper equipment use may negatively affect hand and wrist health (TFD: 83.8%; CEC: 93.9%) and being aware that repetitive movements may cause health problems (TFD: 85.8%; CEC: 95.9%). This finding is consistent with the results in Table 1, which indicated strong awareness of the physical consequences of incorrect posture and prolonged static positions.

Similarly, attention to the compatibility of work tools with the body (TFD: 85.8%; CEC: 89.8%) and consideration of safety and comfort together during equipment use (TFD: 75.5%; CEC: 85.8%) reflect a level of ergonomic awareness that parallels the high environmental and postural awareness reported in Table 1. Overall, when the group C items are evaluated collectively, the findings indicate that both groups possess a high level of ergonomics awareness regarding equipment and tool use, although the CEC group consistently reports higher agreement rates than the TFD group. This pattern is also in line with the comparative results observed in Table 1.

Under heading D in Table 2, which addresses ergonomic knowledge and attitudes, very high agreement rates were observed in both groups. A majority of students agreed that ergonomics is important for occupational health (TFD: 81.6%; CEC: 93.9%) and that ergonomic knowledge increases efficiency in the design process (TFD: 77.6%; CEC: 93.9%). These findings complement the results of Table 1, where students demonstrated strong awareness of the importance of appropriate working conditions and posture for health and productivity. Furthermore, high levels of agreement with statements emphasizing the necessity of ergonomics education (TFD: 77.4%; CEC: 95.9%) and the long-term benefits of ergonomic working habits in professional life (TFD: 81.8%; CEC: 95.9%) suggest that students not only recognize ergonomic principles but also value their applicability in future careers.

When compared with Table 1, the results in Table 2 indicate that while students already possess a strong foundational awareness of ergonomics related to the working environment and physical posture, their ergonomic knowledge, attitudes, and equipment-related practices further reinforce this awareness. The consistently higher agreement rates observed in the CEC group across both tables may be associated with differences in curriculum

content, practical training intensity, or prior exposure to ergonomics-related topics. Overall, the combined findings of Tables 1 and 2 demonstrate that both students who have received ergonomics education and those who have not exhibit high levels of ergonomics awareness, with slightly stronger outcomes observed in the group that has taken an ergonomics course.

CONCLUSION

In textile and fashion design departments, ergonomic awareness is extremely important, both during education and after entering the workforce. To develop this awareness, it is necessary to provide basic ergonomic training and to repeat this training periodically, in various forms depending on needs and the specific sector. However, it should not be forgotten that this awareness and understanding can only be achieved through training.

In this regard, integrating ergonomics-focused courses and applications into textile and fashion design education programs is believed to contribute to students developing healthy and sustainable work habits. Furthermore, it is a fact that individuals who act with ergonomic awareness during their transition to the sector, i.e., in their professional lives, are more sensitive to occupational diseases and can adapt to the work process more quickly.

The dedication of both students and employees in applying what they have learned to their lives outside of work activities ensures the sustainability and permanence of the training. Ergonomic training and initiatives have been observed and supported in numerous studies to support students in moving more carefully and controllably, reducing potential risky situations, lowering the prevalence and costs of illnesses in the workplace, improving individuals' quality of life, and increasing work efficiency, performance, and job-related satisfaction. In conclusion, when the data obtained from this study is evaluated, it is seen that students have a high level of ergonomic awareness in sub-dimensions such as work environment arrangement, posture habits, equipment use, and ergonomic knowledge level. At this point, regarding the sustainability of ergonomic awareness, this study, conducted specifically on textile and fashion design students, emphasizes how necessary and important ergonomic awareness is both in the education process and in working life, and shows that all stakeholders have a role to play in fostering this awareness. In this context, it is necessary to raise awareness of ergonomics in educational institutions, businesses, and all other relevant stakeholders in order to ensure the quality of work-life and the sustainability of all other processes.

REFERENCES

Amell, T, Kumar S. (2001). Work-related Musculoskeletal Disorders: Design as A Prevention Strategy. A Review. Journal of Occupational Rehabilitation, 11, pp. 255–265.

Ayanoğlu, C. (2007). Ergonomics and Stress in the Workplace. Occupational Health and Safety Journal. (İşyerinde Ergonomi ve Stres). İş Sağlığı ve Güvenliği Dergisi, 7(34), pp. 29–36.

Bernacki, EJ, Guidera, JA, Schaefer, JA, Lavin, RA, Tsai, SP. (1999). An Ergonomics Program Designed to Reduce the Incidence of Upper Extremity Work Related Musculoskeletal Disorders. Journal of Occupational and Environmental Medicine, 41(12), pp. 1032–1041.

Berry, C. (2009). A Guide to Ergonomics. North Carolina Department of Labor, 6-9, Retrieved from, 17.12.2025. Website https://safetyresourcesblog.wordpress.com/wp-content/uploads/2014/11/a-guideto-ergonomics.pdf

Creswell, J. W. (2017). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. (Araştırma Deseni Nitel, Nicel ve Karma Yöntem Yaklaşımları9. (S. B. Demir Trans.). Ankara: Eğiten Kitap.

Gunning, J., Eaton, J., Ferrier S., Frumin, E., Kerr, M., King, A., Maltby, J. (2001). Ergonomic Handbook for the Clothing Industry. Union of Needletrades, Industrial and Textile Employees, the Institute for Work & Health, and the Occupational Health Clinics for Ontario Workers, Retrieved from, 26.12.2025. Website https://www.iwh.on.ca/sites/iwh/files/iwh/tools/ergo_handbook_clothing_2001.pdf

Karasar, N. (2005). Scientific Research Method: Concepts, Principles, Techniques. (Bilimsel Araştırma Yöntemi: Kavramlar İlkeler Teknikler). Ankara: Nobel Yayıncılık.

Kaya, Ö., Romanescu, S. (2020). Ergonomics in Design Education: The Case of Romania and Turkey. Ergonomi, 3(2), pp. 74-81. https://doi.org/10.33439/ergonomi.738469

Kaya, Ö., Özok, A. F. (2017). The Importance of Anthropometry in Design. Journal of Engineering Sciences and Design 5(SI: Ergonomi2016), pp. 309-316, (Tasarımda Antropometrinin Önemi, Mühendislik Bilimleri ve Tasarım Dergisi). https://doi.org/10.21923/jesd.45182

Khalid, A., Ambreen, S., Syeda, T. A. (2020). Ergonomic Awareness: Simple Solution to Prevent Work-Related Musculoskeletal Disorders (WMSDs). JBUMDC, 10(1): 86, Retrieved from, 19.12.2025. Website https://applications.emro.who.int/imemrf/666/J-Bahria-Univ-Med-Dent-Coll-2020-10-1-86-eng.pdf

Koca E., Kaya, Ö. (2018). On Ergonomic Perception. Advances in Physical Ergonomics and Human Factors, Springer International Publishing, Advances in Physical Ergonomics and Human Factors Proceedings of the AHFE 2017 International Conference on Physical Ergonomics and Human Factors, July 17-21, 2017 https://www.springerprofessional.de/en/advances-in-physical-ergonomics-and-human-factors/12467962?pageNo=3

Lahiri, S, Markkanen, P, Levenstein, C. (2005). The Cost Effectiveness of Occupational Health Interventions: Preventing Occupational Back Pain. American Journal of Industrial Medicine, 48(6), pp. 515–29.

Robertson, MM, Huang, Y-H, O'Neill, MJ, Schleifer, LM. (2008). Flexible Workspace Design and Ergonomics Training: Impacts on The Psychosocial Work Environment, Musculoskeletal Health, And Work Effectiveness Among Knowledge Workers. Applied ergonomics, 39(4), pp. 482–94.

Silverstein, B, Clark R. (2004). Interventions to Reduce Work-Related Musculoskeletal Disorders. Journal of Electromyography and Kinesiology, 14(1), pp. 135–152.

Stankovic, R, Johnell O. (1995). Conservative Treatment of Acute Low Back Pain: A 5-Year Follow-Up Study of Two Methods of Treatment. Spine, 20(4), pp. 469–472.

Zunjic, A., Papic, G., Bojovic, B., Matija, L., Slavkovic, G., Lukic, P. (2015). The Role of Ergonomics in the Improvement of Quality of Education. FME Transactions, 43(1), pp. 82–87.