

A study on National Education Policy 2020 from the perspective of industrial safety education

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Abstract

The Indian government approved the new education policy (NEP) on 29th July 2020 . After the review of literature on workforce requirements in 2030 i.e. four worlds of work , review of relevant literature about NEP , industrial safety and study of the Occupational Safety, Health and Working Conditions Code, 2020 (OSH Code) and survey on NEP awareness & views of industry on inclusion of focus on Industrial safety , authors present this viewpoint of a request for inclusion of industrial safety as a part of NEP as a focused topic for future education philosophy .

Keywords: National education policy 2020, NEP-2020, Overview & industrial safety , the four worlds of work 2030 , OHS Code 2020 .

Key Terms : Industry safety means occupational health & safety aspects

Title : A study on national education policy 2020 from the perspective of industrial safety education .

Introduction :

Rising demand of improved industrial safety management : Industrial safety culture improvements were started in Western part of the world in early 90s and different research studies are undertaken in these countries and used by industries to improve safety. In India , since 2005 focus on industrial safety is improving mainly due increased presence of multi-national companies . There is need do improvement in industrial safety culture because, industrial accidents claimed over 6300 lives between 2014 to 2017 in India¹ . Well established and proven safety systems , procedures & qualified resources are in place, but still serious industrial accidents are

occurring. The missing link is positive safety culture which includes people involvement from all levels & well-defined safety strategy.

In safety management, while the tools and specific strategies might differ, only approaches based on behavior science will be effective in the long term. Safety culture is influenced by leadership, strategic direction, employee engagement, communication, systems & tools, behavior and condition-based programs.

The four worlds of work 2030 : As PWC, we are living through a fundamental transformation in the way we work. Automation and ‘thinking machines’ are replacing human tasks and jobs, and changing the skills that organizations are looking for in their people. These momentous changes raise huge organizational, talent and HR challenges – at a time when business leaders are already wrestling with unprecedented risks, disruption and political and societal upheaval. PWC report draws on research begun in 2007 by a team from PwC and the James Martin Institute for Science and Civilisation at the Saïd Business School in Oxford and a specially commissioned survey of 10,000 people in China, India, Germany, the UK and the US. This has given us insights into how people think the workplace will evolve and how this will affect their employment prospects and future working lives.

The pace of change is accelerating. Competition for the right talent is fierce. And ‘talent’ no longer means the same as ten years ago; many of the roles, skills and job titles of tomorrow are unknown to us today. Industry, government, education institutes need think about strategies which will be useful to fulfill the needs of future talent.

The megatrends are the tremendous forces reshaping society, the world of work, the economic shifts that are redistributing power, wealth, competition and opportunity around the globe; the disruptive innovations, radical thinking, new business models and resource scarcity that are impacting every sector. It will be important that

education policy considers these megatrends for ensuring capacity building of youth in view of these megatrends . These megatrends are

- Technological breakthroughs ,
- The changing size, distribution and age profile of the world's population
- Significant increase in the world's population moving to live in cities
- Power shifting between developed and developing countries
- Resource scarcity and climate change

As per this research , there will be four different potential scenarios called as 4 world of works in 2030 . Industry , education institutes , countries need to prepare for these dynamic situations . As per Yellow world , human comes first . The future employees in yellow world preference will give importance to health and safety at workplace , welling of people will valued . This means industry and businesses who show commitment for people will become successful in attracting talent and growing the business . From this perceptive it is very important that our NEP considers industrial health and safety as a important focus in our education policy .



India's Occupational safety , health and working conditions code , 2020 :

- The Occupational Safety, Health and Working Conditions Code, 2020 amalgamates over 10 labor laws to consolidate into one comprehensive act.
- It was passed by the Indian parliament and received the president's assent in September 2020.

Success of NEP is also depends upon how it is synchronized with other National policies and reforms . New labour code 2020 is one of the important reform in India legislation . NEP needs to consider alignment with OSH code 2020 for long-term success of NEP and also effective implementation of OSH code in the country .

Industry perspective about inclusion of industrial safety as a focused topic in NEP : a survey has been conducted understand the awareness about national education policy and industry professionals opinion about current status of industrial safety and their opinion about including industrial safety education in national education policy.

This research is based on global study about importance of workplace safety in future world of 2030 , new Indian OHS code , industry opinion survey and relevance of industry safety in India's National Education policy .

Need and significance of study :

There is need do improvement in industrial safety culture because industrial accidents claimed over 6300 lives between 2014 to 2017. A strategic approach is needed for safety management and culture improvement . Approaches based on behavior science & also improving safe conditions will be effective in the long term.

NEP can positively impact the mindset of students if our education system includes industrial safety as an important topic of our education system . Industrial projects , visits will help to create stronger connect between colleges and industry . NEP can influence industrial safety education and culture in long-term by creating focus on industrial safety .

Research identifies the gap and importance of considering industrial safety as an important topic under NEP 2020 . This work can create positive impact in establishing safety management and culture programs in economical way in our country . Improved safety awareness among students will bring cultural transformation in industrial safety in long term .

Scope:

This study is restricted to the industry in Pune area only however the relevance of topic has broader scope .

Objectives:

- To study the NEP interface with industry & industry perspective about NEP
- To study NEP interface with future workforce needs in relation to industrial safety
- To study NEP interface with OHS Code 2020
- To provide suggestions for inclusion of industrial safety as an important topic under NEP

Research methodology:

Primary & secondary data:

The task of data collection is planned for the identified research problem . Method of data collection is decided by keeping in mind two types of data viz., primary and secondary. The primary data are those which are collected afresh and for the first time, and thus happen to be original in character.

The secondary data, on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process. The researcher would have to decide which sort of data he would be using (thus collecting) for his study and accordingly he will have to select one or the other method of data collection. The methods of collecting primary and secondary data

differ since primary data are to be originally collected, while in case of secondary data the nature of data collection work is merely that of compilation.

In dealing with any real life problem it is often found that data at hand are inadequate, and hence, it becomes necessary to collect data that are appropriate. There are several ways of collecting the appropriate data which differ considerably in context of money costs, time and other resources at the disposal of the researcher.

For this research on NEP , primary data is collected through survey using questionnaire & feedback. 104 industrial professionals participated in this focused survey about NEP and its relevance with industrial safety . Participants have also provided suggestions about inclusion of industrial safety as a part of NEP .

Secondary data is collected from different research papers , documents about NEP , safety management .

LIMITATIONS

Research work identified following limitations:

- 1) The research considers population from Pune industrial area for statistical analysis of respondent's opinions.
- 2) The proposed suggestions are based on needs for future workers 2030 , OHS code 2020

Data analysis & interpretation of data :

Industrial accident statistics shows that there is a need to improve focus on this topic as a part of our education system . NEP 2020 is bringing transformation on education methods by bringing importance to industry/ vocational skill building . Industrial safety education can be imparted through such vocational trainings which will definitely help to create & improve safety mindset of students . Search students when they will go to the industry then they can work safely as they are already trained on safety requirements. while designing the syllabus safety requirements can be considered. NEP 2020 has a plan to give vocational degree which will be with the partnership with industry we can leverage this opportunity to create focus on industrial safety while doing such programs. Students are expected to do research based on industry internship and publish scholarly papers / own patents compulsorily as a part of their degree requirement. The awareness related to industrial safety should be provided during their undergraduate programme so that creating a focus on industrial safety during the postgraduation period is possible. Like in Western countries we can promote research work in the field of industrial health and safety .

After doing the study of PWC research work about the four worlds of work 2030 following conclusions can be made .



This research has identified four type of potential situations at works that they call as four worlds of work 2030. Globally we are experiencing extremely dynamic business

environment and which is bringing significant change in our thinking. The skills required for the future are changing very fast. Artificial intelligence and automation are replacing human tasks and jobs. Changing geopolitical situations is also adding more complexity. This situation is bringing needs of different skills required for business and industry. Industry cannot wait but need to take action now because change has already begun. To address the need of industry and business education system and policy needs to be also synchronized. Colleges and other educational institutes shall develop students considering the future business needs. Future working world is defined as four worlds of work 2030 . These four worlds are ,

- Red world – innovation rules & freedom to work become more important
- Blue world - corporate is king & promote borderless working
- Green world - companies care & importance to climate change
- Yellow world – Human comes first . Importance to human values , safety and health at work

National education policy 2020 is bringing different transformational changes in the education system and governance which will definitely contribute to fulfill the needs of business and industries which are identified under various types of worlds above. Yellow world is a world which focuses on the concept of “human comes first” . As per this scenario , employees will prefer to work with such companies who values fairness & ethics . Industrial health and safety will become more important under this scenario. If national education policy define certain measures to bring industrial health and safety as a part of education system than definitely this will help. Education systems can supply competent people in the field of industrial safety. Students who are aware about industrial safety from their education stage will bring different mindset at workplace . Focus on industrial health and safety will further reduce the losses caused due to accidents and improve our economic growth. Accident prevention is not only brings economic benefits but it also improves social , emotional well-being of citizens. Good industrial safety practices also helps to improve the relationship between industry and employees and their associations. Under the national education policy one can think about bringing certain programs for industrial workers , there union leaders , supervisors & management to promote industrial health and safety education & awareness.

National occupational health and safety code 2020 is approved by Indian government. This is a transformational change in our legal requirements. Industry and workers needs to comply with this changed legal requirements. To ensure effective implementation and compliance of these legal requirements national education policy can also contribute. National education policy can consider certain programs for students where awareness on the legal requirements can be considered as a part of syllabus. programs can be designed in partnership with industry to create strong awareness about national occupational health and safety code. Such initiatives will bring industry and education institutes and government bodies together and this will help to our country to improve overall industrial safety culture and management. We can compete better with multinational companies with improved safety management and improved safety practices. This will bring business growth for our industry.

Primary data was collected using a survey questionnaire. The questionnaire was focused on understanding the views of industrial professionals about national education policy and its content , current attention on industrial safety in our education system , potential inclusion of industrial safety as a focus area under NEP , potential impact of industrial safety education on industrial accident prevention , usefulness & effectiveness of digital programs in creating safety awareness & open suggestions by responders . Online survey was conducted in which industrial professionals from Pune area where invited. 104 participants has contributed in this survey and given their opinion. the survey results are analyzed and provides interesting facts as below . The survey was conducted in Feb 2022 using 9 questions . 104 industrial professionals responded voluntarily to this survey . Since survey was anonymous profiles of respondent are remained confidential however as per the personal interactions these members are from different functional backgrounds like operations , quality , finance , human resources , safety etc.

Survey Results :

Question	Response	Comment
No. of total respondents	104	

Are you aware about release of national education policy 2020?	Yes 59 % No 41 %	Low awareness
Are you aware about its content ?	Good 13 % Limited 37 % No 51 %	Low awareness
Do you support that NEP shall create clear focus on industrial safety education ?	Yes 75 % No 7 % May be 18 %	Support for inclusion of topic in NEP
Do you think that inclusion of industrial safety practicals will help in accident prevention?	Yes 94 % No 3 % May be 3 %	safety education can contribute for accident prevention
Do you think that industry safety experts shall be involved in syllabus design to ensure important safety topics are considered?	Yes 92 % No 3 % May be 5 %	Experts involvement in syllabus design is supported
Do you think that digital trainings will impact positively the safety education from college itself ?	Yes 83 % No 4 % May be 13 %	Digital trainings may impact safety education
What will be impact of industrial visits and projects on creating safety awareness among students?	8.80 out of 10	Very high impact possible through industrial visits & projects
Do you think that industrial safety is a neglected area in our education system ?	8.06 out of 10	Shore indicates that this a neglected area in our education system
Suggestions	75 suggestions received	

Graphical representation of data :

1. Are you aware about release of national education policy 2020?

[More Details](#)

Yes 61
No 43



Yes 59 %

No 41 %

2. Are you aware about its content ?

[More Details](#)

Good awareness 13
No 53
Limited awareness 38



Good Awareness 13 % ,

Limited awareness 37 % ,

No 51 %

3. Do you support that NEP shall create clear focus on industrial safety education ,?

[More Details](#)

Yes 78
No 7
Maybe 19



Yes 75 %

No 07 %

May be 18 %

4. Do you think that inclusion of industrial safety practicals will help in accident prevention?

[More Details](#)



Yes 94 %

No 03 %

May be 03 %

5. Do you think that industry safety experts shall be involved in syllabus design to ensure important safety topics are considered?

[More Details](#)



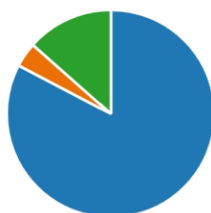
Yes 92 %

No 03 %

May be 05 %

6. Do you think that digital trainings will impact positively the safety education from college itself ?

[More Details](#)



Yes 83 %

No 04 %

May be 13 %

7. What will be impact of industrial visits and projects on creating safety awareness among students?

[More Details](#)

8.80

Average Rating



8. Do you think that industrial safety is a neglected area in our education system ?

[More Details](#)

8.06

Average Rating



9. Any suggestion to improve education policy for industrial safety

[More Details](#)

75

Responses

Latest Responses

"Industrial safety should be introduced in school from c...

"Practicals need to be focused and creation of modern ...

"Yes education policy improve industrial safety"

National Education Policy NEP 2020

104

Responses

03:56

Average Time

Closed

Status

Primary data analysis clearly shows that inclusion of industrial safety in our education will definitely help our country in long run. National education policy has several positive transformation strategies to promote vocational education , industry internships programs etc. Considering industrial safety as a part of vocational education and industrial internships , projects will definitely help to improve safety awareness among students and in future these students can contribute for improving safety management and safety culture in industry. There are 75 suggestions from 104 participants about this topic & this is an indication of interest of industry professionals towards this topic. These suggestions are analyzed and the key suggestions includes recommendation to include industrial safety education particularly in engineering and management education , focus on behavioral skills , focus on discipline , industrial safety as a subject , inclusion of case stories from real industrial life , supporting involvement of experts ,

Conclusion and suggestions :

With the introduction of National education policy 2020 , it is expected that the Indian higher education system will be moving from teacher centric to student centric, information centric to knowledge centric, marks centric to skills centric, examination centric to experimental centric, learning centric to research centric, and choice centric to competency centric . The overall NEP and transformational strategies looks very positive to ensure availability of skilled workforce for industry of future . Industry associated programs will be bring education institutes , government and industry closer to each other . NEP has indicated focus on safety aspects associated with students , teachers & teaching methods . This will help to sensitize students and teachers on safety . However focus on industrial safety can further help to bring focus on this important topic for country . Industrial Health and safety education will become very important to meet the requirements of red world as indicated in four worlds of work 2030 . Focus on industrial safety education will also bring synergy with new occupational health and safety code 2020 and it will help for its effective implementation in the country. Conclusion from the survey support the inclusion of industrial safety as a part of our basic education system and philosophy.

Based on the research it is suggested that national education policy can include industrial safety as an important topic to focus under any NEP .

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