TRANSFORMING AGRICULTURAL EDUCATION AND RESEARCH INSTITUTIONS FOR BETTER FUTURE: SOME THOUGHTS

This Presentation Covers

- **Brief history of agricultural education and research in India.**

- **Changing expectations –Teaching/Research/ Extension**

- **Engagement**

- **Learning**

- **Scholarship**

- **Concluding remarks**

Development of Agricultural Education/ Research in India (Pre Independence)

Milestone	Year
▪ Department of Agriculture	1871
▪ Agriculture Colleges at Kanpur, Nagpur Pune and Coimbatore	1893-1907
▪ Veterinary Colleges : Bombay Madras and Calcutta	1886-1903
▪ Pusa Institute	1903
▪ Royal Commission	1926
▪ ICAR	1929

Development of Agricultural Education/ Research in India (Post Independence)

Milestone	Year
First Education Commission	1948
First Indo-American Team on Agriculture Education (Damale Committee)	1955
Second Indo-American Team of Agriculture Education (M.S.Randhwa Committee)	1959
First Agricultural University	1960
Ralph W. Cummings Committee	1960
Model Act for SAU	1994

Society Growth Path: Agrarian Society – Semi Industrial- Industrial Society- Super Industrial – Service Society.

As we graduate from semi- industrial to industrial society, the expectations are undergoing a dramatic change.

The expectations from universities are also changing from teaching/research/extension to engagement/learning/discovery.

What is an Engagement ?

Engagement is a two-way partnership, a reciprocal relationship between institutions and community defined by mutual respect for the strength of each other.

Kellog Commission

Engaged Institutions

Institutions that have redesigned their teaching, research, extension and service functions to become more sympathetically and productively involved with their client communities.

Engagement has Vast Dimensions

It may involve:

- **Engagement with students .**

- **Engagement with farming communities .**

- **Engagement with industry.**
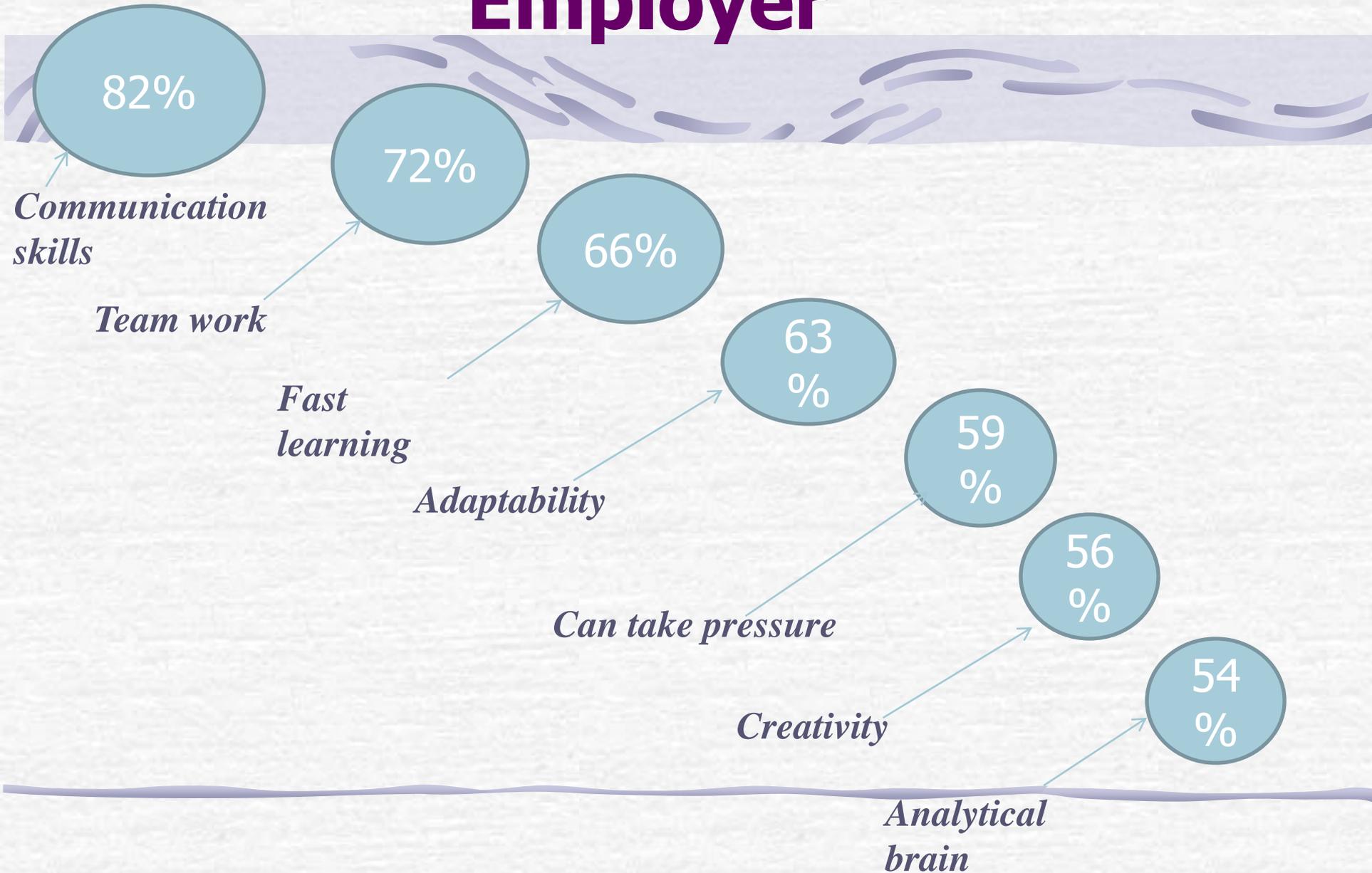
- **Engagement with future .**

- Focus more on learning than teaching .

- Equal value to excellence in teaching and research.

- Supplement class room teaching (Sage on Stage) with collaborative learning (Faculty as guide on the side).

What Engaged Institutions Must Do?

- **Get organized to respond to the needs of students of present era.**

- **Enrich students experiences by incorporating research and engagement into the curriculum.**

- **Offer practical opportunities to students to prepare for the new age.**

- **Must put critical resources (knowledge and expertise) to work to solve problems that the clients face.**

Soft Skills Desired by Employer

82%

Communication skills

72%

Team work

66%

Fast learning

63%

Adaptability

59%

Can take pressure

56%

Creativity

54%

Analytical brain

Learning Organization

- **Organization that acquires knowledge and innovates fast to survive and thrive in a rapidly changing environment. The key features are:**

- **A culture of continuous learning, thinking and risk taking with new ideas**

- **Allowing mistakes and valuing contribution**

- **Learning from experience and experiment.**

- **Disseminating new knowledge throughout organization**

Learning organization: Component Technologies

- **Systems thinking**
- **Personal mastery**
- **Mental models**
- **Building a shared vision**
- **Team learning**

Key Elements of Learning Organization (I)

- **It values and fosters habits of lifelong learning and ensures that there are responsive and flexible learning programs.**

- **It is socially inclusive.**

- **It views information technologies as tools for enriching learning by tailoring instructions to individual, societal and organizational needs.**

Key Elements of Learning Society (II)

- **It stimulates the creation of new knowledge through research and other means of discovery.**

- **It values regional and global interconnections and cultural links.**

- **It fosters public policy that ensures equity of access to learning, and recognizes that investments in learning contribute to overall competitiveness and the economics.**

Covenant for Learning University

- Equal educational opportunity.

- Excellence in all programs including U.G., P.G.   and professional courses.

- Creation of learning environment.

- Education and research agenda, that have latest knowledge and are responsive to public needs.

- Firm resolve to meet the local, national and global needs.

Actions That Promote Learning

- **Access** Broaden access to lifelong learning by providing a wide variety of teaching and learning opportunities and approaches.

- **Partnerships** Partnerships of three kinds are essential: Partnership with other institutions to provide high-quality academic programs; Partnership between the higher-education community and pre college education, and Partnership with government, business, and professional associations to plan in advance for the educational needs.

- **Accreditation:** Establishment of accrediting agencies for ensuring high quality learning.

Challenges (I)

Equal Access: The whole country is challenged to accomplish the needed improvements for access.There is a great deal of well-justified concern over the gap between the rich and the poor in the society. The public clearly understands the fact that the only door to opportunity in the future is education.

Challenges (II)

Rapid Change: The entire environment is being rapidly transformed by the seemingly infinite possibilities of information and communications technologies. The ability to acquire, understand, and organize pertinent, accurate, authoritative information ,provides the essential context for technical know-how and the skills in navigating through complex cyber-systems of information.

Internationalization: **The internationalization of life demands the creation of a learning society. As national borders become more permeable and transparent to huge international networks of mass communication and transportation, we confront again on a worldwide scale the need for cross-cultural understanding. We are all now citizens of the world.**

How to Transform the University Education

- Give emphasis on values and mission.

- Invigorate academic governance by developing a   system of sharing responsibilities .

- Lay down standards for scholarly work.

- Emphasize on learning , as it is the main reason for existence of universities

SCHOLARSHIP DEFINED

Scholarship is creative intellectual work that is validated by the peers and communicated.

The commonly accepted forms of scholarship are:

- **Discovery of new knowledge**

- **Development of new technologies, methods, materials or uses.**

- **Integration of knowledge leading to new understanding.**

- **Artistry that creates new insights and interpretations .**

The Nature of Scholarship

Forms ⟶	Discovery	Development	Integration	Artistry
Character Scholarship	Generates, synthesizes, interprets and communicates new knowledge, methods, understanding, technologies , materials, uses, insights, beauty...			
Audiences Scholarship	Peers, students, users, patrons, publics...			
Means of communicating Scholarship	Publications, presentations, exhibits, performances, patents, copyrights, distributions of materials of programs...			
Criteria for validating Scholarship	Accuracy, replicability, originality, scope, significance, breadth, depth and duration of influence, impact or public benefit....			
Means of documenting Scholarship	Present evidence that creative intellectual work was validated by peers; communicated to peers and broader audiences; recognized, accepted, cited, adopted or used by others, that it made a difference.			

Professorship Defined

"Is it possible to define the work of faculty in ways that reflect more realistically the full range of academic and civic mandates?" The work of the professoriate might be thought of as having four separate, yet overlapping, functions. These are : the scholarship of *discovery:* , the scholarship of *integrations;* the scholarship of *application;* and the scholarship of *teaching".*

Earnest L. Boyer's -1990

What is Wrong with the Evaluation and Reward System? (I)

- **Scholarship is undefined and often equated with research and publications.**

- **Peers sometimes evaluate performance without reference to position description .**

- **There is more emphasis on individual performance as compared to team effort.**

- **In team efforts, there is no proper mechanism to evaluate individual contribution properly.**

What is Wrong with the Evaluation and Reward System? (II)

- **Form and activities are given weightage without emphasis on substance and consequence.**

- **Unduly more focus on research funding.**

- **Directed mostly on specialized peer audiences.**

- **Over specialized, discipline focused and may not be relevant or responsive to social problems.**

Concluding Remarks

The commitment of institution to student community as well as the society on the whole has to increase. Ethics and values have to regain importance. The knowledge generated has to be put to work for the good of society. The institutions have to equip themselves for providing life long learning.