Futuristic Prospects of Higher Education for Soldiers: A Study of Educational empowerment, Career Transition and Emerging Opportunities

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ABSTRACT

India's Armed forces are undergoing a reflective transformation under the "Decade of Transformation" and the broader vision of Viksit Bharat 2047, ambitious by rapid technological change, multi-domain warfare, and the Agnipath recruitment model. This research article examines the futuristic prospects of higher education for soldiers (including Agniveers, serving personnel, and veterans) in the Indian context. It explores how digital platforms, credit recognition frameworks, university–defence collaborations, and competency-based learning can create seamless pathways between military service and lifelong academic and professional growth.

Using a mixed-methods approach with the help of secondary data and that combines policy analysis, literature review of defence and higher-education reforms, and forward-looking scenario modelling, the article identifies both transformative potential and persistent challenges: deployment constraints, recognition of experiential learning, digital access in remote postings, and the need to balance warrior ethos with academic upskilling. Findings indicate that a well-aligned higher-education ecosystem can enhance force readiness, improve post-service employability, support Atmanirbhar Bharat in defense technology, and contribute to national human-capital goals under the National Education Policy 2020.

Keywords: Higher education for soldiers, Indian Army, Agniveers, Professional Military Education (PME), National Credit Framework, Viksit Bharat 2047.

INTRODUCTION

The nature of military service has traditionally emphasized physical fitness, discipline, leadership, operational preparedness, technical competence and professional military training. However, the contemporary security environment is increasingly knowledge-intensive. Modern armed forces require personnel who can understand technology, data, cyber systems, communication networks, logistics, artificial intelligence, unmanned systems, geopolitical developments and complex socio-economic environments.

The Indian Armed Forces, particularly the Indian Army, represent one of the largest volunteer forces in the world. In an era of grey-zone conflicts, cyber warfare, autonomous systems, artificial intelligence, and multi-domain operations, the traditional model of military training alone is insufficient. Continuous higher education and lifelong learning have become strategic necessities for operational effectiveness, leadership development, and successful transition to civilian life. Consequently, education should no longer be regarded as separate from military professional development. For soldiers, higher education can function as a mechanism for developing transferable competencies that remain valuable during service and after transition to civilian employment.

The issue is particularly important for personnel below officer rank. Soldiers may enter military service soon after secondary or senior-secondary education and may subsequently acquire substantial technical and professional competencies through military training. Yet military training and civilian educational qualifications are not always automatically interchangeable in the labour market.

The Agnipath scheme (introduced in 2022) has fundamentally altered recruitment by creating a short-service cohort of Agniveers. Simultaneously, the Army's "Decade of Transformation" (aligned with Viksit Bharat 2047) emphasises technology absorption, force restructuring, and civil-military fusion. Parallel reforms under the National Education Policy (NEP) 2020, the National Credit Framework (NCrF), and digital public infrastructure (DigiLocker, APAAR) create unprecedented opportunities to integrate military experiential learning into formal higher education.

The IGNOU case study on educational empowerment of the Indian Armed Forces observed that defence personnel may retire comparatively early and therefore require civilian educational qualifications to facilitate their second careers. The study specifically examined how IGNOU's educational programmes affected career advancement, social status and academic competencies.

The significance of this issue has increased with India's evolving higher-education policy. NEP 2020 emphasizes flexibility, multidisciplinary learning, vocational education, adult education, lifelong learning and technology-enabled education. The UGC's Academic Bank of Credits framework further supports the accumulation and transfer of academic credits across recognised higher-education institutions.

An especially important development has been the integration of defence-service training with Bachelor's degree programmes. IGNOU's present skill-based programmes for defence personnel recognise NSQF-aligned defence training as academic credit. For example, the B.Com. (Applied Skills) programme consists of 120 credits, including 60 credits from IGNOU and 60 credits from defence-service skill training.

Thus, higher education for soldiers is moving from the traditional model of "study after service" towards a more integrated model of "education during service for service and post-service life." This article analyses the current landscape and projects futuristic prospects of higher education for Indian soldiers up to 2035–2047.

Background of Higher Education for Soldiers in India

Open and distance learning has particular relevance for military personnel because soldiers may be posted in remote, difficult or geographically dispersed locations. Traditional campus-based education is often difficult to access under such circumstances.

IGNOU developed the Gyandeep initiative for Indian Army personnel and Akashdeep for Indian Air Force personnel. These initiatives recognised knowledge and skills acquired through defence training and provided academic certification and pathways to Bachelor's degrees. The original model included certificate, diploma and associate-degree stages, enabling eligible personnel to enter the third year of Bachelor's degree programmes after acquiring the required credits Srivastava Manjulika, Abrol Navita, Suman Shekhar; Indian Journal of Open Learning, 2019).

The scale of the earlier initiative was substantial. As reported in the IGNOU case study, by May 2018, 4,21,204 personnel were registered under Gyandeep and 49,617 under Akashdeep. The study also reported 2,619 personnel who had successfully completed graduation through the third-year lateral-entry pathway (Dorothy, 2017).

A major subsequent development was the skill-based Bachelor's degree model for Agniveers and defence personnel. IGNOU documents indicate that these programmes integrate theoretical higher education with practical skills acquired through defence-service training. Current programmes include BA (Applied Skills), B.Com. (Applied Skills) and B.Sc. (Applied Skills), among others (Deka, 2023).

This represents a major conceptual shift: Military training → recognition of prior learning → academic credits → degree → employability → lifelong learning.

Statement of the Problem

Although soldiers receive extensive professional training during military service, many personnel may face difficulty translating military competencies into civilian educational and occupational credentials. The central problem addressed by this study is therefore: How can higher education be redesigned to meet the present and future educational, professional and career-transition needs of soldiers, while simultaneously recognising their existing military knowledge and skills?

The problem has five major dimensions:

- Access to higher education during active service.
- Recognition of military training as academic credit.
- Development of civilian employability.
- Preparation for second careers and entrepreneurship.
- Creation of lifelong and technology-enabled learning opportunities.

Objectives of the Study

The study has the following objectives:

O1. To assess the existing and emerging educational mechanisms better serve serving soldiers, and veterans.

O2. To review existing literature concerning military personnel and higher education.

O3. To examine the relationship between academic development and professional development.

O4. To examine the technological, policy, and institutional innovations are required.

O5. To identify futuristic opportunities created by NEP 2020, digital education, AI, skill-based degrees and credit transfer.

O6. To propose a futuristic framework for higher education for soldiers in India

Research Questions.

RQ1. What are the major educational needs of soldiers, and veterans during and after military service?

RQ2. Does higher education contribute to perceived professional and second-career opportunities?

RQ3. What role can digital, distance and blended education play in expanding educational access for soldiers?

RQ4. What technological, policy, and institutional innovations are required?

RQ5. How can military training be integrated with higher education through credit recognition?

RQ6. What are the futuristic prospects of AI, micro-credentials, Academic Bank of Credits and skill-based degrees for soldiers?

Hypotheses

For a quantitative extension of the study, the following hypotheses may be tested:

H01: There is no significant relationship between academic development and professional development among soldiers.

H1: There is a significant positive relationship between academic development and professional development among soldiers.

H02: Higher education has no significant perceived impact on the professional prospects of soldiers.

H2: Higher education has a significant positive perceived impact on the professional prospects of soldiers.

H03: Recognition of military skills as academic credits does not significantly enhance the attractiveness of higher education for soldiers.

H3: Recognition of military skills as academic credits significantly enhances the attractiveness and accessibility of higher education for soldiers.

LITERATURE REVIEW

Professional Military Education (PME) and Institutional Framework

The Indian Army maintains an extensive network of Category 'A' training establishments, the Army War College, Defence Services Staff College (DSSC), and specialised schools. Traditional PME focuses on leadership, tactics, strategy, and operational art. Recent restructuring of the Army Education Corps prioritises domain experts in cybersecurity, information technology, linguistics, and information warfare, reflecting the shift toward technology-centric warfare.

Digital and Online Initiatives

In November 2024, the Chief of Army Staff launched the Eklavya digital learning platform. Developed at zero cost with support from BISAG-N, it hosts nearly 100 courses across three categories: pre-course preparatory capsules, appointment-specific training, and a Professional Development Suite (strategy, leadership, emerging technologies, finance, etc.). Officers can pursue multiple courses simultaneously, enabling continuous professional development even in operational environments.

Agniveer-Specific Pathways

Under the Agnipath scheme, in-service training is recognised for academic credit. IGNOU offers a specially designed three-year skill-based bachelor's degree in which military training accounts for 50% of credits. Multiple entry-exit options and recognition by UGC, AICTE, and NCVET enhance portability (Deka, 2023). Recent MoUs (e.g., Sikh Regiment with Guru Nanak Dev University) enable Agniveers to pursue diplomas and undergraduate programmes (BA, BCA, BCom) concurrently with service. Skill certificates are being linked to DigiLocker and the APAAR system for seamless recognition under the NCrF.

University and Industry Collaborations

Growing partnerships include: IIT Ropar's M.Tech in Defence Technology for mid-level officers. IIT Madras Agnishodh (Indian Army Research Cell) focusing on additive manufacturing, cybersecurity, quantum computing, and unmanned systems. Collaborations with other IITs for materials, drones, and simulators. Private universities (e.g., UPES, KIIT) offering fee concessions, reserved seats, online degrees, and skilling programmes in AI, cybersecurity, logistics, and management for serving and retired personnel. These initiatives reflect a deliberate move toward civil-military fusion in education and research.

Higher Education and Employability

Higher education contributes to employability not simply through disciplinary knowledge but also through generic competencies such as communication, problem-solving, learning ability and adaptability. A systematic

review of the transition from higher education to employment found that theoretical knowledge, communication, problem-solving and learning skills are particularly important, while generic competencies are widely valued in the labour market (Sharma et al., 2022: Rai et al., 2024).

For soldiers, these competencies have special significance because many military occupations develop transferable skills—leadership, discipline, teamwork, logistics, communication, technical operation and decision-making—that can be strengthened and translated into civilian qualifications through higher education.

Military Personnel and Higher Education.

Research concerning student service members and veterans indicates that military personnel entering higher education can experience distinctive academic and institutional challenges. These include differences in educational background, adjustment to civilian academic environments, institutional support requirements and transition-related issues (Hussain, 2025).

A later scoping review covering 75 studies identified three broad areas affecting the transition from military service to higher education: demographic/psychosocial factors, interpersonal and institutional support, and academic transition experiences and outcomes.

These findings suggest that simply making courses available is insufficient. Soldiers require an educational ecosystem that includes counselling, mentoring, flexible schedules, credit recognition and appropriate learner support.

Professional Military Education.

Recent scholarship on professional military education indicates that military higher education is a diverse and evolving field without a single universally accepted model. The changing character of warfare requires continuous reconsideration of the knowledge, competencies and educational structures required by military professionals (Sharma and Jain (2021).

This supports the argument that higher education for soldiers should not be restricted to traditional degree programmes. It should include multidisciplinary education, technology, leadership, management, cyber awareness, data literacy, communication and entrepreneurship.

Indian Evidence: IGNOU's Educational Empowerment Study.

The most directly relevant Indian empirical study is Srivastava, Abrol and Suman's study of educational empowerment through IGNOU in 2019. The study surveyed defence personnel who had successfully completed Bachelor's degrees under the Gyandeep and Akashdeep schemes. A five-point Likert-scale questionnaire was distributed to 1,719 personnel; 731 responded and 128 questionnaires were returned undelivered.

The study found substantial perceived academic and personal benefits, including improved writing, reading, knowledge, decision-making and social status.

The study is particularly important because it provides empirical evidence directly connecting higher education with the professional aspirations of defence personnel.

Research Gap

The literature indicates several gaps.

- **Gap 1**: **Limited Indian empirical research.** There is relatively limited empirical research specifically examining higher education among Indian soldiers compared with the broader literature on civilian higher education.

- **Gap 2**: **Post-service transition.** Much of the discussion focuses on access to education rather than the complete pathway:
- military training → higher education → credential recognition → employment → career progression.
- **Gap 3: Digital transformation.** The rapid development of AI, online education, micro-credentials and digital learning requires new research on how these technologies can be adapted to military learners.
- **Gap 4: Recognition of military competencies.** Military personnel often possess extensive practical competencies. Research is needed on how systematically these competencies can be converted into recognised academic credits.
- **Gap 5: Agniveer education** The newer skill-based degree programmes create an important research opportunity concerning educational participation, completion, employment outcomes and long-term career progression.

CONCEPTUAL FRAMEWORK

The study proposes the following conceptual model:

Military Training

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Recognition of Prior Learning / Credit Transfer

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Higher Education

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Academic Competencies

- Communication

- Critical thinking

- Digital literacy

- Problem-solving

- Knowledge enhancement

↓

Professional Competencies

- Leadership

- Decision-making

- Management

- Entrepreneurship

- Adaptability

↓

Civilian Employability

↓

Second Career / Entrepreneurship / Further Education

↓

Social and Economic Empowerment

This framework suggests that military training and higher education should be complementary rather than competing forms of learning.

RESEARCH METHODOLOGY

Research Design

This study employs a qualitative-dominant **mixed-methods design** adopts a descriptive, analytical based on secondary-data research design suitable for policy-oriented futuristic analysis:

Systematic policy and literature review of official statements, MoUs, NEP 2020 documents, Army transformation roadmaps, and academic commentary (2022–2026). Thematic analysis of emerging trends in digital PME, credit recognition, and defence-academia partnerships.

Scenario modelling projecting three pathways (optimistic, plausible, constrained) to 2035–2047, informed by current adoption rates of Eklavya, Agniveer education schemes, and IIT collaborations.

Comparative insights drawn from global PME trends adapted to the Indian institutional and cultural context. Data sources include government releases, defence publications, higher-education policy documents, and secondary analyses. Limitations include the relatively recent nature of many initiatives (post-2022) and limited publicly available longitudinal outcome data. It combines:

- Systematic review of relevant literature.
- Analysis of published empirical data.
- Policy analysis.
- Interpretation of emerging educational technologies.
- Development of a futuristic conceptual framework.

Main Empirical Dataset (Sample).

This paper based on secondary data , the principal quantitative dataset comes from the IGNOU study of defence personnel who had successfully completed Bachelor's degrees through vertical mobility under the Gyandeep and Akashdeep schemes.

The original researchers mailed questionnaires to 1,719 defence personnel. A total of 731 responses were received, while 128 questionnaires were returned undelivered.

Thus: [Response\ Rate=\frac {731} {1719} \times100] [=42.52%]

The undelivered proportion was approximately: [\frac {128} {1719} \times100=7.45%]

The study itself used descriptive statistical techniques and reported correlation analysis.

Profile of Respondents

The published study reported the following characteristics.

Ser No	Variables	Categories	Percentage
1.	Age	30–40 years	**62.8%**
2.	Age	40–50 years	37.2%
3.	Residence	Urban	57.3%
4.	Residence	Rural	42.7%

5.	Education at registration	10+2	**92.9%**
6.	Education at registration	10th	7.1%
7.	Current status	In-service	**71.2%**
8.	Current status	Retired	3.5%
9.	Current status	Re-employed	10.1%
10.	Current status	Self-employed	12.5%
11.	Current status	Unemployed	2.7%
12.	IGNOU degree	B.A.	**71.8%**
13.	IGNOU degree	B.Com.	15.2%
14.	IGNOU degree	B.Sc.	13.0%

Source: Published field data reported by Srivastava et al.

For interpretation, 71.8% of the 731 respondents corresponds to approximately 525 BA graduates, 111 B.Com. graduates and 95 B.Sc. graduates.

Data Analysis

Educational Motivation.

Respondents were asked about their reasons for selecting the IGNOU programme.

Ser No	Reasons	B.A.	B.Sc.	B. Com.
1.	Career growth	81.3%|	72.1%|	56.3%
2.	Improvement of educational qualifications	85.2%	71.3%	85.5%
3.	Upliftment of social status	**92.7%**	**88.9%**	**89.9%**
4.	Knowledge enhancement	82.7%	60.5%	43.1%
5.	All of these	68.9%	55.1%	41.1%

Interpretation: The strongest motivation across all three-degree groups was social-status enhancement. The percentages were: - BA: 92.7%, B.Com.: 88.9%, B.Sc.: 89.9%

This indicates that higher education has significance beyond employment. A degree can provide soldiers with recognition as formally qualified graduates and may improve confidence and social standing. Educational qualification was another major motivation, especially among BA and B.Sc. respondents. Career growth was also important, although it was not the highest-ranked motivation. This finding indicates that higher education for soldiers performs at least three functions:

Credential function + social empowerment function + employability function.

Academic and Personal Benefits.

The original study found the following major perceived benefits.

Ser No	Benefits	Strong Agreements
1.	Improved writing ability	**89.2%**

2.	Improved reading ability	**87.5%**
3.	Upgraded knowledge	**75.3%**
4.	Improved decision-making ability	**66.0%**
5.	Improved social status	**63.8%**
6.	Greater respect/attention from others	58.7%
7.	Improved speaking ability	56.2%
8.	Improved comprehension	55.7%
9.	Improved working skills	43.8%
10.	Improved general knowledge	42.2%
11.	Improved presentation skills	42.0%
12.	More serious engagement with TV news/debates	21.3%
13.	More serious newspaper/magazine reading	20.7%
14.	Made new friends	9.3%
15.	More serious radio news listening	4.4%

Analysis. The first major conclusion is that academic benefits were strongest in fundamental communication competencies. Writing ability had the highest reported benefit at 89.2%, followed by reading ability at 87.5%. This is important because communication skills are highly transferable to civilian employment. The third major outcome was knowledge enhancement at 75.3%. Decision-making improved for 66.0% of respondents. This is particularly relevant because decision-making is already an important military competency; higher education appears to provide an additional intellectual framework through which such competencies may be developed.

Social-status improvement was reported by 63.8%. Therefore, the evidence suggests that higher education contributes to: Cognitive development, Communication, Knowledge, Decision-making, Social confidence and Professional readiness etc.

Professional Benefits.

The published study also examined expected professional benefits.

Ser No	Professional outcome	Percentage	Mean
1.	Getting a promotion	38.2%	4.189
2.	Better job within establishment	24.7%	3.371
3.	Better job outside establishment	42.6%	4.213
4.	Getting re-employed	44.0%	4.298
5.	Starting own venture	34.1%	3.755
6.	Enrolling for higher studies	19.0%	3.439
7.	Not achieved anything	16.2%	3.435

The published study reported these mean scores on the relevant satisfaction/benefit scale.

Ranking of professional prospects by mean

- Re-employment — 4.298
- Better job outside establishment — 4.213
- Promotion — 4.189
- Entrepreneurship — 3.755
- Higher studies — 3.439
- Better job within establishment — 3.371

This ranking is significant. The strongest expected benefit is not necessarily promotion inside the military establishment; it is employment after or outside military service. Therefore, higher education appears to be perceived primarily as a mechanism of career transition and employability.

Further Academic Growth.

The original study found that only a minority of respondents were interested in continuing higher studies after completing the Bachelor's degree.

Ser No	Degree	Interested in Further Studies	Not Interested
1.	**B.A.**	32.1%	67.9%
2.	**B.Sc.**	34.1%	65.9%
3.	**B.Com.**	36.3%	63.7%

Interpretation: This finding reveals an important challenge. Many soldiers appear to view graduation as the minimum civilian credential required for employment, rather than as the beginning of lifelong academic development. This suggests that future programmes should not stop at Bachelor's degrees. Soldiers should have structured pathways such as:

Certificate → Diploma → Bachelor's → PG Diploma → Master's → Professional Certification → Doctoral/Research Education.

Digital and modular education can make this pathway more feasible.

Correlation Analysis

The original study reported:

Ser No	Dimensions	Mean	Standard deviation
1.	Academic/personal growth	4.2393	0.48266
2.	Professional benefit	3.8157	0.41113

Pearson correlation = 0.896 - Significance = p = 0.006 Therefore: [r=0.896]

This represents a very strong positive correlation between academic/personal growth and professional benefit. Because: [p=0.006<0.01] the reported relationship is statistically significant at the 1% level. The coefficient of determination can also be interpreted: [R^2=r^2] [R^2= (0.896) ^2\approx0.803] Thus, approximately 80.3% of the variance in professional benefit scores is associated with the linear relationship reported between the two measures.

However, this should not be interpreted as proof that higher education alone causes 80.3% of professional success. The original analysis was correlational, not an experimental causal study, and the reported correlation

appears to have been calculated using aggregate variables with a much smaller analytical N than the overall respondent sample.

This distinction is essential for academically sound interpretation.

Overall Quantitative Findings

The empirical evidence can be summarised as follows:

Ser No	Dimensions	Major Finding
1.	Response	731 of 1,719 questionnaires received
2.	Response rate	Approximately 42.5%
3.	Main age group	30–40 years: 62.8%
4.	Main educational background	10+2: 92.9%
5.	Main degree	BA: 71.8%
6.	Writing improvement	89.2%
7.	Reading improvement	87.5%
8.	Knowledge enhancement	75.3%
9.	Decision-making improvement	66.0%
10.	Social-status improvement	63.8%
11.	Re-employment mean	4.298
12.	Better outside job mean	4.213
13.	Promotion mean	4.189
14.	Academic-professional correlation	r = 0.896
15.	Statistical significance	p = 0.006

The overall pattern is strongly supportive of the proposition that higher education can contribute to soldiers' academic, social and professional development.

Contemporary Policy Environment.

- **NEP 2020**. NEP 2020 provides a favourable policy environment for lifelong and flexible education. Its adult-education provisions include continuing education, vocational skills and lifelong learning, while emphasizing infrastructure and ICT-enabled access. For soldiers, this is particularly relevant because their educational requirements do not necessarily fit the conventional full-time college model.
- **Academic Bank of Credits**. The UGC's Academic Bank of Credits framework is designed to digitally store academic credits and facilitate mobility between recognised higher-education institutions. This creates a potentially powerful model for military personnel: Military training credits + university credits + MOOCs/micro-credentials = accumulated academic record.
- **Credit Recognition and Modular Pathways.** The National Credit Framework offers a powerful architecture. Full operationalisation of military training and experiential learning credits under NCrF, combined with DigiLocker/APAAR integration, can create stackable micro-credentials leading to diplomas, degrees, and postgraduate qualifications. Agniveers completing four years of service could exit with a recognised undergraduate credential plus specialised skill certificates, dramatically improving civilian employability. Serving personnel could accumulate credits across postings, enabling flexible degree completion over a career.

- **Recognition of Military Skills/ Civil-Military Fusion and Second-Career Readiness.** Universities and private providers are increasingly offering tailored online and hybrid programmes with fee concessions. Future models may include reserved seats, joint research cells, innovation challenges, and entrepreneurship support for veterans. This fusion supports both force modernisation and the broader national goal of leveraging disciplined, skilled human capital for economic growth.

IGNOU's current defence-related programmes represent an important development in this direction. Its B.Com. (Applied Skills), for example, uses a 120-credit structure in which 60 credits come from IGNOU and 60 credits from defence-service skill training.

This model is particularly valuable because it does not force soldiers to repeat knowledge and skills that they have already acquired through rigorous military training.

Futuristic Prospects of Higher Education for Soldiers

Technology-Enabled Lifelong Learning; The Eklavya platform is a foundational step. By 2030–2035, integration of generative AI for personalised learning paths, adaptive assessments, and intelligent tutoring can further customise education to individual postings, ranks, and career goals. Virtual and mixed-reality modules can simulate operational scenarios while awarding academic credit, reducing the need for prolonged physical absences from units. High-altitude and remote postings, currently a barrier, can be mitigated through offline-capable content and low-bandwidth delivery.

Optimistic Scenario: Seamless NCrF integration, widespread AI-personalised learning, and deep IIT–Army collaboration lead to high completion rates, improved retention of technical talent, and strong post-service outcomes.

Plausible Scenario (most likely): Steady expansion of Eklavya-type platforms and credit mechanisms yields moderate but significant gains in educational attainment and domain expertise.

Constrained Scenario: Persistent challenges of digital access, institutional inertia, and competing operational demands limit impact.

Domain Specialisation and Defence Technology Education

Partnerships with IITs and other premier institutions will expand. Specialised programmes in AI, cyber operations, quantum technologies, autonomous systems, and defence production management will produce "techno-warriors" and future leaders capable of driving Atmanirbhar Bharat in critical technologies. The Army Education Corps' shift toward domain experts will institutionalise continuous upskilling in these areas.

AI-Enabled Personalised Learning.

Artificial intelligence can provide personalised learning pathways based on a soldier's: educational level, military occupation, existing competencies, learning speed, career aspirations, preferred language and available study time. AI tutors could provide adaptive explanations, practice questions, language assistance, formative assessment and career guidance. The emerging literature on digital lifelong learning indicates that AI and large language models are becoming increasingly relevant to personalised learning and adult education.

Digital and Mobile Learning. The future soldier may not need to attend conventional classrooms regularly. Learning can increasingly occur through: mobile applications, learning management systems, recorded lectures, digital libraries, MOOCs, virtual classrooms, podcasts, interactive simulationsand AI tutors etc. This is particularly suitable for personnel posted in remote locations.

Micro-Credentials. Instead of relying exclusively on three- or four-year degree programmes, soldiers could accumulate smaller credentials.

For example:

a. Cybersecurity Fundamentals — 6 credits
b. Data Analytics — 8 credits
c. Leadership — 4 credits
d. Project Management — 6 credits
e. Logistics Management — 8 credits
f. English Communication — 4 credits

These credentials could eventually accumulate toward diplomas and degrees where regulations permit.

Recognition of Prior Learning. This is perhaps the most important future prospect.

Military personnel already possess competencies in the logistics, transportation, communications, engineering, administration, inventory management, leadership, security, disaster response, medical support and technical maintenance etc. Instead of requiring soldiers to relearn these subjects from the beginning, higher-education institutions can assess competencies and award appropriate academic credits. The emerging IGNOU model demonstrates that such integration is institutionally feasible.

Future Higher-Education Model for Soldiers. A proposed future model is:

- **Stage 1: Competency Mapping.** Every soldier receives a digital competency profile based on: educational qualification; military trade; courses completed; training hours; assessed competencies; and certifications.
- **Stage 2: Credit Conversion.** Eligible military training is mapped against nationally recognised learning outcomes.
- **Stage 3: Academic Bank.** Credits are digitally recorded.
- **Stage 4: Flexible Education.** The soldier chooses: certificate; diploma; Bachelor's; postgraduate diploma; Master's; and professional certification etc.
- **Stage 5: Career Mapping**. AI-assisted systems recommend civilian occupations based on: Military skills + academic qualifications + labour-market demand.
- **Stage 6: Transition Support**. During the final years of service, soldiers receive: CV development; interview training; entrepreneurship education; financial literacy; digital skills; industry exposure; and internship/apprenticeship opportunities etc.

Suggested Curriculum for Soldiers. A future soldier-oriented higher-education curriculum could contain six components.

Ser No	Components	Suggested Weight
1.	General education	20%
2.	Military/technical skill recognition	30%
3.	Digital and AI skills	15%
4.	Communication and leadership	10%
5.	Entrepreneurship and financial literacy	10%
6.	Industry-linked vocational learning	15%

The exact proportions would require validation through curriculum research and regulatory approval.

Role of Universities. Higher-education institutions should establish dedicated Defence Learner Support Centres. These centres could provide:

a) Admission assistance.
b) Credit-transfer assessment.
c) Academic counselling.
d) Digital-learning support.
e) Examination flexibility.
f) Career counselling.
g) Recognition-of-prior-learning services.
h) Entrepreneurship support.
i) Alumni networking.
j) Post-retirement career transition services.

Research on service-member and veteran students indicates that institutional support and social networks can play an important role in academic transition and adjustment.

Role of the Armed Forces. The Armed Forces can contribute by:

a) systematically documenting training outcomes;
b) aligning training with national skill frameworks;
c) creating digital competency records;
d) providing protected study time;
e) encouraging educational participation;
f) facilitating examination leave;
g) creating education cells;
h) partnering with universities;
j) supporting career-transition programmes

Military education should therefore be viewed as part of human-resource development rather than simply welfare.

Role of Government

The Government can strengthen the system through:

a. National standards for recognition of military learning.
b. Interoperability between military training records and academic credit systems.
c. Scholarships for soldiers.
d. Subsidised digital devices and connectivity where required.
e. National career-transition platforms.
f. University-industry partnerships.
g. Apprenticeship opportunities.
h. Research grants on military education.
j. National monitoring of educational outcomes.
k. Dedicated policy for lifelong learning of defence personnel.

Challenges

Despite considerable opportunities, several challenges like Time constraints, Frequent postings, Digital divide, educational heterogeneity, Language barriers, Motivations, Recognition difficulties, Quality assurance, post-service counselling and future prospects etc.

Recommendations

Based on the limited literature on this title and empirical evidence, the following recommendations are proposed.

- Every serving soldier should have access to a personalised lifelong-learning plan.
- The Academic Bank of Credits should be integrated, wherever legally and technically feasible, with recognised defence-training credits. Fully map military training and experiential learning to NCrF; accelerate DigiLocker/APAAR linkage for all skill certificates.
- Universities should provide flexible examination and learning arrangements for serving personnel. Provide dedicated academic counselling, mentoring, and flexible assessment options for military learners.
- AI-based learning platforms should be developed specifically for adult military learners. Institutionalise joint degree programmes, research cells, and faculty exchange with IITs, central universities, and selected private institutions.
- Higher education should include entrepreneurship and financial literacy. Universities should create dedicated defence learner support centres. Expand Eklavya-style systems across all ranks and services; integrate AI, AR/VR, and offline capabilities.
- Train higher-education faculty in military cultural competency and the recognition of prior military learning. Employers should be educated about the transferability of military competencies.
- Establish longitudinal tracking of educational attainment, career progression, and post-service employment for soldiers and Agniveers.

Proposed Future Research Design. A new empirical study could use a sample of 500–1,000 serving and retired soldiers.

Independent variables: Educational qualification, Military training, Digital literacy, Years of service, Age, Access to education and Credit recognition etc.

Dependent variables: Employability, Career confidence, Social empowerment, Income after retirement, Entrepreneurship and Further education etc.

Mediating variables: Self-efficacy, Communication skills, Digital competence and Career adaptability etc.

Statistical techniques: Descriptive statistics, Mean and standard deviation, t-test, ANOVA & Chi-square test etc apply according to nature of data.

A longitudinal design would be particularly valuable because it could compare outcomes before education, immediately after graduation and after transition to civilian employment.

Limitations of the Present Study

The present article has several limitations.

First, the principal empirical evidence comes from a published IGNOU case study rather than a newly collected 2026 dataset.

Second, the original study was focused on defence personnel who had successfully completed relevant IGNOU degree programmes; therefore, its findings should not automatically be generalised to every serving soldier.

Third, many reported variables represent perceived benefits rather than independently verified employment outcomes.

Fourth, the correlation between academic and professional growth demonstrates association, not causation.

Fifth, the educational technology environment is changing rapidly, so future research should periodically reassess the impact of AI, digital learning and micro-credentials.

These limitations make a new longitudinal multi-service study highly desirable.

CONCLUSION

Higher education for soldiers is no longer merely a welfare-oriented activity. It is increasingly an essential component of military human-resource development, lifelong learning and national employability policy. The futuristic prospects of higher education for soldiers in India are closely intertwined with the nation's dual ambitions of military modernisation and human-capital development under Viksit Bharat 2047. Initiatives such as Eklavya, Agniveer credit recognition, IIT partnerships, and NCrF alignment already demonstrate significant momentum.

When fully realised through technology, flexible credit systems, and genuine civil-military fusion, higher education can transform soldiers into adaptive, technologically proficient leaders who contribute both to national security and to India's broader knowledge economy.

The future of higher education for soldiers should therefore be understood as a transition from "education as a qualification" to "education as lifelong capability."

REFERENCES

1. Army University Press. (2021, February 26) Army transformation roadmaps and statements by Chief of Army Staff on the Decade of Transformation and Viksit Bharat 2047.
2. Deka, M. (2023, August 1). IGNOU signs with Indian Army, Navy, Air Force to offer skill-based UG programmes to Agniveers. Careers360. https://news.careers360.com/ignou-signs-indian-army-navy-air-force-offer-skill-based-ug-programmes-agniveers
3. Dorothy, J. S. (2017). Arming the armed forces for a civilian life: An experience of Indira Gandhi National Open University, India. Asian Journal of Distance Education, 12(1), 36–51.
4. Government of India, Ministry of Education. (2020). National Education Policy 2020. The policy emphasises adult education, continuing education, vocational education, technology and lifelong learning.
5. Grosemans, I., Coertjens, L., & Kyndt, E. (2017). Exploring learning and fit in the transition from higher education to the labour market: A systematic review. Educational Research Review, 21, 67–84.
6. IGNOU. (2023, August 1). Programme launch notification no. 118: Bachelor of Arts (Applied Skills) (BAAS) for Agniveer Scheme of IGNOU. Planning & Development Division, Indira Gandhi National Open University. https://www.ignou.ac.in/viewFile/pdd/notification/Notification-No-118.pdf
7. IGNOU. (2019). Educational Empowerment of the Indian Armed Forces: A Case Study of IGNOU. Indian Journal of Open Learning, 28(1), 23–36. The study examined defence personnel completing Bachelor's degrees through IGNOU's Gyandeep and Akashdeep initiatives.
8. IGNOU. Bachelor of Commerce (Applied Skills). The programme integrates university education with defence-service skill training and uses a 120-credit structure.
9. Deka: IGNOU (2022). Special three-year skill-based Bachelor's degree programme for Agniveers. The programme was designed to recognise technical and non-technical skills acquired during defence service.
10. Husain, I. (2025). Bridging education and service through open and distance learning model: A study of armed forces learners. Asian Association of Open Universities Journal, 20(3), 228. https://doi.org/10.1108/AAOUJ-03-2025-0040
11. Official releases and statements on Eklavya platform (Army Training Command / Ministry of Defence, 2024).
12. MoUs and partnership announcements (IIT Ropar, IIT Madras Agnishodh, Guru Nanak Dev University, KIIT, UPES, etc.).
13. M. Shrivastava et al. (2019). Educational empowerment of the Indian armed forces: A case study of IGNOU. Indian Journal of Open Learning, 28(1), 23–36. STRIDE, IGNOU.
14. Sharma, M. R., Jain, D., & Sharma, V. (2022). Transition of ex-servicemen from military to civilian society: Challenges and prospects in reintegration. In A. Joshi, M. Mahmud, R. G. Ragel, & N. V. Thakur (Eds.), Information and communication technology for competitive strategies (ICTCS 2020) (pp. 547–558). Springer. https://doi.org/10.1007/978-981-16-0739-4_52

15. University Grants Commission. (2021). UGC (Establishment and Operation of Academic Bank of Credits in Higher Education) Regulations, 2021.
16. Student Service Members/Veterans on Campus: Challenges for Reintegration. The review identifies distinctive academic and institutional challenges experienced by service-member and veteran students.
17. Secondary analyses on civil-military fusion in training and education (ORF and related policy commentaries).
18. University to work transition: A literature review. (2021). International Journal of Manpower, 43(7), 1502–1515.
19. Wilcher, K. (2023). Student service member and veteran transition to higher education: A scoping review. University of Illinois IDEALS.
20. No common understanding? A scoping review of professional military education in the twenty-first century. (2025). Scandinavian Journal of Educational Research.