

Bridging education and service through open and distance learning model: a study of armed forces learners

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Abstract

Purpose – The Higher Secondary Certificate (HSC) Niche-1 is a specialised programme that Bangladesh Open University (BOU) offers. Between 2014 and 2024, over 48,000 soldiers from the Bangladesh army were enrolled in this programme, with an average pass rate of 90.86% over the past decade. The main aim of this study is to evaluate the impact of the HSC Niche-1 programme, focusing on professional, socioeconomic, and academic development of the soldiers.

Design/methodology/approach – A mixed-methods research design was followed, using both quantitative and qualitative data collection methods. To gather qualitative insights, 225 graduated learners participated in structured interviews, while 25 participants participated in three focus group discussions (FGDs).

Findings – A substantial number of participants reported that the programme has positively influenced their personal, professional and social lives. This has played a crucial role in securing current employment by improving their service performance. Additionally, the programme has created valuable job opportunities for participants after retirement. The study shows that the HSC Niche-1 programme is contributing to the professional development of armed forces personnel and supporting the country's economic growth.

Research limitations/implications – The cantonment of the Bangladesh Army and the Bangladesh Navy or Air Force base are highly restricted areas. It was challenging to stay there or collect data for any study. The researcher contacted the appropriate personnel and requested their assistance gathering information regarding the Niche-1 programme. They cited institutional restrictions, security concerns and military secrecy as the main reasons for their refusal to assist. Then the researcher presented his FGD checklist and survey questionnaire. Upon evaluation, they made some modifications and verbally consented to collect data on the Niche-1 programme. However, they were overly concerned about any written document. They did not put their signatures on the attendance sheet in FGD sessions. The researcher was also aware of all sorts of sensitivities.

Originality/value – This study contributes to the growing inclusive and flexible learning dialogue. The HSC Niche-1 programme is different from the traditional educational framework and it can bridge the gap between service commitment and the academic development of armed forces soldiers. This study offers immense perceptions of the role of academic interventions and professional development amongst Niche-1 learners.

Keywords HSC Niche-1 programme, Open and distance learning (ODL), Armed forces learners, Service and learning integration, Skills development, Knowledge attainment

Paper type Research article

1. Introduction

Creating a skilled workforce through education is essential to achieve Sustainable Development Goals (SDGs) and ensure optimum development in Bangladesh (ILO, 2024). It has been challenging to instil the necessary abilities and skills following the demands of 21st-century society (Nasrullah, 2021). The military forces of Bangladesh are dealing with these issues, just like other facets of society. The Bangladesh Army (BA), Bangladesh Navy (BN) and Bangladesh Air Force (BAF) strategically decided to improve their soldiers' educational backgrounds to overcome the obstacles. They mandated the Higher Secondary Certificate



(HSC) as a prerequisite for job confirmation, promotion, and retirement benefits. However, the HSC is a mid-level educational programme that bridges secondary and higher education in Bangladesh. The armed forces collaborated with the Bangladesh Open University (BOU) to provide HSC education to their soldiers through the Open and Distance Learning (ODL) system. According to [Wordu \(2022\)](#), ODL is a teaching and learning scenario where the teacher and student participate in an interactive learning environment, despite their geographical separation in terms of time and location. Open education entails removing obstacles like time and location constraints. The ODL system significantly contributes to developing instructional approaches by providing learner-centric knowledge and skills ([Ahmed et al., 2022](#)). “By creating and implementing creative and economical distribution methods worldwide, this dynamic system of educational transactions is significantly contributing to the conversation on knowledge creation and dissemination” ([Wani et al., 2023](#)).

To formalise this initiative, the BOU and the Bangladesh Army, Navy, and Air Force signed several memoranda of understanding (MoUs). Programme regulations were established to ensure the smooth operation of this specialised initiative. The HSC Niche-1 programme uses dedicated admission, examination, and result processing software. The programme adheres to a specific timetable for admissions, tutorial sessions, and examinations, distinct from BOU’s traditional HSC curriculum, hence assuring adaptability and effectiveness suited to the requirements of military personnel. This is an excellent example of lifelong learning without schooling. [Wordu \(2022\)](#) argues that schooling is just one form of education; there are numerous other methods to increase our knowledge and acquire new abilities that will help us succeed in our chosen fields and throughout our lives. Conversely, “the ongoing, thoughtful, and voluntary quest for knowledge carried out either for individual or occupational purposes is known as lifelong learning ([CEC, 2006](#))”.

The term “Niche” originates from French and is commonly used in business and marketing to describe a specialised segment tailored to specific needs. In marketing, a “Niche market” refers to a targeted group of consumers seeking unique products. Similarly, Niche-1 is a specialised and customised BOU programme designed exclusively for Bangladesh’s armed forces. Over the years, thousands of soldiers have earned their HSC certificates through this programme.

1.1 The ODL and the specialised education programme

Many studies ([Ahmed et al., 2022](#); [Mbambo and Plessis, 2024](#); [Adewale et al., 2024](#); [Ouma and Nkuyubwatsi, 2019](#); [Bordoloi, 2018](#)) have been conducted to examine the scope and impact of ODL. They have examined the application of learner-centred pedagogical methods and AI’s impact on teacher training in Open Distance and Electronic Learning (ODEL). Many concepts, models, and theories enrich ODL, especially adult learning. Andragogy, an adult learning theory developed by [Knowles et al. \(2015\)](#), is significantly close to the Niche-1 programme. The fundamental principles of this theory include: (1) adults require a rationale for learning, (2) adults contribute their life experiences and knowledge to the learning process, and (3) adults exhibit self-direction in their learning endeavours. The Niche-1 learners are adult, rational, and self-directed. Therefore, military learners heavily rely on andragogy for their learning process. [Mezirow’s \(1991\)](#) transformative learning theory is also relevant to leadership development in military settings. The study concentrated on the transformation of worldviews and the reflection of experiences. Another theory, named guided didactic conversation (GDC), by [Holmberg \(2005\)](#), emphasised the student-teacher relationship. He believed that learning would be more successful if the students and the teacher could discuss the material. However, in distance learning, a few challenges exist to building a relationship between teachers and students, like the conventional system. However, the military personnel stay close within a determined area, and their study materials make a bridge between the teachers and the learners.

[Peters’ \(1993\)](#) industrial model conceptualises remote education as a systematic and industrialised process involving mass production, standardisation, and division of labour. In demonstrating the division of labour, all responsibilities, including course creation, tutoring,

evaluation, and administrative duties, are allocated amongst specialists. Learning materials are developed for extensive distribution, reducing costs and enhancing productivity. The use of media and technology improves the provision of education. Offering customised courses for the armed forces learners is reminiscent of the Peters' model. Moore's (1993) Transactional Distance Theory (TDT) examined the educational gap in ODL environments. TDT underlined three concepts: dialogue, structure, and learners' autonomy. Learner autonomy means the freedom of students to set their own goals and manage their learning. TDT prefers a psychological and communicative space between learners and instructors rather than a physical separation. In the ODL system, the learners have autonomy to choose their courses; they are not obligated to attend the class, and sometimes they are not closely connected to the teachers or instructors.

Kolb (1984) developed experiential learning theory, which states that military training requires a four-stage learning cycle: specific capabilities, insightful surveillance, intellectual conceptualisation, and vigorous experimentation. Kolb's cycle relies on simulation, drills, and field exercises. Lave and Wenger (1991) showed that learning ensues in communities of practice, like units or squads, through social interaction and engagement in real tasks. These theories and models apply to armed forces settings, ODL, and the Niche-1 programme.

Akhter and Rahman (2022) examined the evaluation process and assessed faculty attitudes toward online assessments for Non-Residential Bangladeshi (NRB) students. However, the NRB learners enrol in another specialised programme of BOU named Niche-2. Husain (2025) revealed the socioeconomic profile of the armed forces learners of the HSC Niche-1 programme. He examined the demographic scenery and professional status of the learners who are the entry-level soldiers of the Bangladesh armed forces. In the 21st century, education must be available at home, the workplace, and any other location where anyone can achieve it. One of educational process that has made this possible is ODL (Wordu, 2022). The author analysed the ODL conceptually and showed its goals, philosophy, advantages, disadvantages, etc.

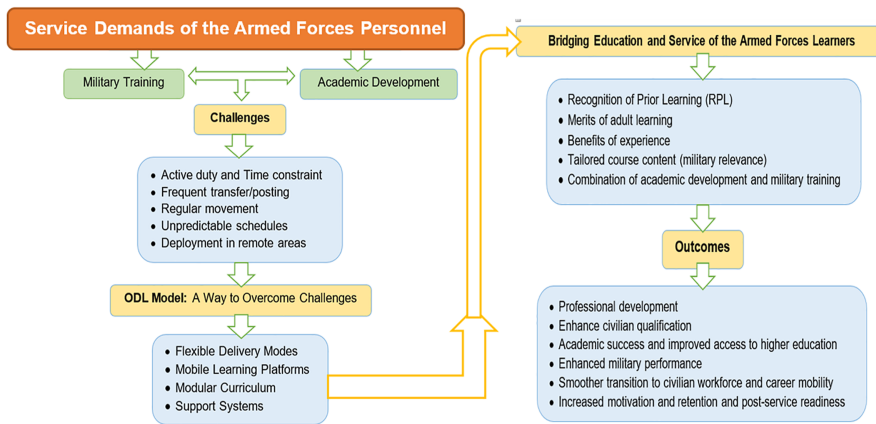
The ODL system has contributed significantly to this direction by providing learner-centric education and skills and, most importantly, serving the marginalised sections through different instructional media like print, audiovisual, teleconferencing, interactive radio counselling, and various online platforms (Wani et al., 2023). They have presented the nature and application of ODL from the perspective of the socioeconomic circumstances of people living in Jammu and Kashmir (J&K), India. Within the process of digital transformation, the field of distance education is in transition. The traditional boundaries between dedicated distance teaching institutions and conventional residential institutions are blurring (Richter et al., 2024). In this context, the authors have analysed "the systematic reviews (SRs) in Open, Distance, and Digital Education (ODDE)". They examined 576 SRs published between 2018 and 2022 in the field of ODDE using the umbrella mapping review method.

Uddin and Kabir (2024) analysed "the role of the armed forces in higher education governance in Bangladesh". They depicted that the military governs at least three public universities, four private universities, and myriad affiliated institutes to foster higher education. They are playing a significant role in increasing skilled human resources in Bangladesh. Husain (2014) and Husain et al. (2016) explored the challenges of the Secondary School Certificate (SSC) programme operated in the ODL mode. They analysed the challenges of the mentioned programme in contemporary circumstances and provided some recommendations for mitigation rules. As the educational domain beholds momentous changes operated by digitalised evolutions and transforming social requirements, ODL emerges as a promising strategy to address challenges related to accessibility, inclusivity, and quality in education (Rai et al., 2024). They looked at the effectiveness of online distance learning (ODL) programmes, accessibility, inclusivity, and alignment with educational principles, such as the National Educational Policy (NEP) 2020 of India.

1.2 Conceptual framework

To improve lifelong learning, career advancement, and post-service employability, it is essential to investigate how ODL might help members of the armed forces continue their education while actively serving in the military. All military personnel are on active duty,

task-oriented, disciplined, and have time constraints. There are frequent transfers or postings, unpredictable schedules, deployment in remote areas, and operational commitments in the armed forces. However, in the present context, academic development and military training are necessary to perform nationally and internationally. A standard civilian qualification is essential for their professional development. As a flexible delivery mode, ODL can bridge the gap between academic development and military training for the armed forces personnel. The bridging can be explored through the following conceptual framework (Figure 1).



Source: Created by author

Figure 1. Conceptual framework of the study

1.3 Rationale of the study

There was a time when higher education was prohibited for in-service soldiers. However, in response to national and international demands, the Bangladesh government introduced the Niche-1 programme for entry-level soldiers. The primary objective of this initiative is to enhance the educational qualifications and skills of the soldiers in the Bangladesh Armed Forces. Obtaining an HSC certificate has become a prerequisite for service confirmation, promotion, opportunities in foreign missions and retirement benefits. As a result, soldiers who did not complete HSC before joining the armed forces are required to enrol in the Niche-1 programme to secure their current and future careers. After ten years of implementation, assessing the programme's impact is crucial. How have the learners and their employers benefited from this initiative? This study seeks to explore and answer this critical question by analysing the outcomes and overall effectiveness of the Niche-1 programme. The study intended to evaluate the effects of the HSC Niche-1 programme. The study lays out the following particular objectives to accomplish this goal.

- (1) To analyse the outcomes of the Niche-1 programme.
- (2) To examine its impact on the professional development of soldiers.
- (3) To explore the socioeconomic effects of the programme.
- (4) To identify the link between education and service amongst armed forces personnel.

2. Methodology

A mixed-methods research design was followed using quantitative and qualitative data collection methods. 225 graduating students (i.e. Sainik, Nabik and Biman Sena) from the

Niche-1 programme were surveyed using a structured questionnaire between January and September 2023. These participants were randomly chosen from their respective study centres (SCs). However, the researcher selected the SCs purposively, considering the scope and opportunity for data collection from the restricted armed forces areas (Cantonments/Ghatis). Till 2023, 35,042 learners of the Niche-1 programme have graduated and 225 were selected for the questionnaire survey. Assuming a population proportion of 0.5, a 95% confidence level, and a 6.5% margin of error, the standard sample size formula with finite population correction has been used to justify the sample size of 225 statistically.

The Niche-1 graduate learners were initially identified by communication with the relevant office. A designated number of participants were randomly chosen for data collection, considering their duties and commitments. Following mutual consent, the location and schedule were determined and the researcher met with them according to the agreed timeline. The researcher met with the respondents in their mess, dining area or duty station during midday and evening hours. A substantial number of questions were closed-ended. A five-point Likert scale was used to evaluate the impact and outcome. The data processing has been condensed into three points.

In addition, qualitative data were obtained through three focus group discussions (FGDs) involving 25 Niche-1 learners. The first FGD, conducted in September 2023, included 10 participants from the Bangladesh Army at Station Central School (SCS) in Savar Cantonment, Dhaka (Table 1). The second session engaged eight learners from BNS Titumir, Khulna, while the final discussion involved seven participants from BAF Shaheen College, Chattogram, during the same month. Following a written checklist, the researcher conducted the FGDs as a moderator. A warrant officer of the relevant SC was appointed as a note-taker. The schedule of the FGDs is as follows.

Table 1. Basic information of FGDs conducted by the researcher

Sl#	Date	Venue	Participants	No. of participants
FGD 1	05/09/2023	SCS, Savar Cantonment, Dhaka	Niche 1 graduate learners	10
FGD 2	09/09/2023	Training office, BNS Titumir, Khulna		08
FGD 3	23/09/2023	BAF Shaheen College, Chattogram		07
<i>Total participants in FGDs</i>				25

Source(s): Table by the author

All FGDs were conducted with the relevant officers' and chosen participants' informal oral consent because defense members have different restrictions; none agreed to consent in writing.

2.1 Study area

The BA is a significant part of the HSC Niche-1 programme. Around 86% of the total learners enrolled in this programme belong to the BA. Consequently, the researcher selected the maximum number of SCs from the BA. One SC was chosen from the BN and another from the BAF. The researcher tried to cover the different regions of Bangladesh to ensure the reliability, accuracy, and authenticity of the collected data. The selected SCs are as follows.

- (1) SCS Savar Cantonment, Dhaka;
- (2) SCS Majhira Cantonment, Bogura;
- (3) SCS Chattogram Cantonment, Chattogram;
- (4) SCS Sylhet Cantonment, Sylhet;
- (5) SCS Jashore Cantonment, Jashore;

- (6) SCS Alikadam Cantonment, Bandarban;
- (7) BNS Titumir, Khalishpur, Khulna; and
- (8) BAF Shaheen College, Chattogram.

The selection of the SCs as mentioned above was purposeful, as many passing-out learners remained at these SCs. Moreover, these SCs and their relevant officers were more supportive during data collection.

The top 42 respondents (18.66%), the learners of the HSC Niche-1 programme, were selected from SCS in Savar (Figure 2), Dhaka Cantonment, as more learners were available at this SC. Additionally, 35 participants (15.55%) were chosen from SCS Sylhet and SCS Jashore. Meanwhile, 30 respondents (13.33%) were selected from each SCs in SCS Bogura, SCS Chattogram and SCS Alikadam, Bandarban Cantonments. Furthermore, 15 participants (6.66%) were from BNS Titumir, Khulna, while eight respondents (3.55%) were from BAF Shaheen College, Chattogram. Notably, BNS Titumir, Khulna, serves as a base for the Bangladesh Navy, whereas BAF Shaheen College is affiliated with the Bangladesh Air Force.

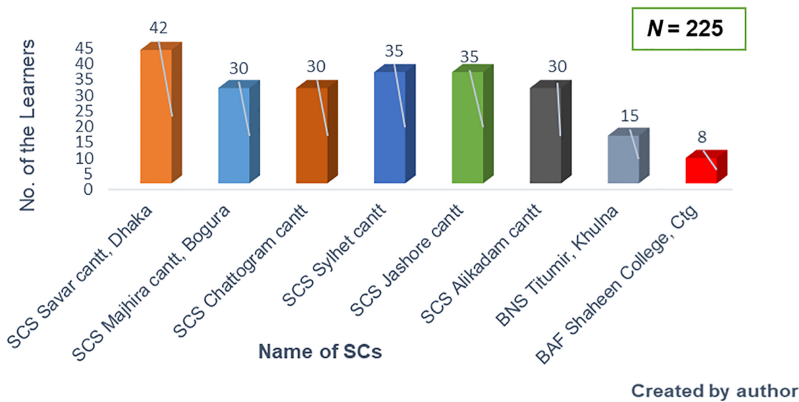


Figure 2. Learner-respondents based on SCs

2.2 Data analysis

Microsoft Excel and the Statistical Package for the Social Sciences (SPSS) programme were used to validate, sort and then analyse the data that had been collected. The following are the sources from which the data were gathered.

The majority of respondents, 202 (89.77%), were from the BA (Table 2). As previously mentioned, 86% of learners in the HSC Niche-1 programme are affiliated with this institution. 15 out of the 20 SCs under this programme belong to the BA. Therefore, it is anticipated that the majority of the respondents will originate from this institution.

Table 2. Distribution of respondents based on the armed forces

Name of the armed forces	No. of respondents	%
Bangladesh Army	202	89.77
Bangladesh Navy	15	6.67
Bangladesh Air Force (BAF)	08	3.56
<i>Total</i>	<i>225</i>	<i>100</i>

Source(s): Survey by author in 2023

Most of the respondents in this study were male, with primary data collected from 212 male participants (94.22%). Conversely, just 13 responders (5.78%) were female. The enlistment of female soldiers in the armed services is notably limited. Programme records from the ICT and E-learning Centre, BOU (July 2023), indicate that less than 2% of learners enrolled in the programme from 2014 to 2023 were female. In this perspective, a substantial number of female respondents in this research is noteworthy.

3. The main features of the HSC Niche 1 programme

The HSC Niche-1 is a specialised academic programme developed and delivered exclusively for soldiers of the Bangladesh Armed Forces through the ODL system. This programme operates under multiple memoranda of understanding (MoUs) and specific regulations outlined in the BOU Act of 1992 (amended in 2009) and has been running successfully since 2014. The academic session follows a January to December cycle, with enrolment open only to soldiers (Sainik, Nabik, and Biman Sena) from the Bangladesh armed forces.

To cater to the unique needs of military personnel, the programme includes customised subjects such as ICT, Military Studies, Air Warfare Studies, Naval Warfare and Tactics and Ocean Geography. However, course design is a significant factor for quality education and determining the nature of interaction in the ODL system, especially in collaborative learning (De Backer *et al.*, 2022; Peramunugamage *et al.*, 2024). A dedicated software system has been developed to manage all administrative processes, including learner enrolment, registration, payment, SC transfers, re-exam registration, examination attendance, marks entry, result processing and error corrections.

A distinctive feature of the Niche-1 programme is its spot evaluation system. As per examination regulations, the examination committee assigns monitoring teams as needed. Under their supervision, examiners, head examiners and scrutinisers conduct the evaluation process. To ensure a prompt and efficient assessment process, the examination division publishes the results within seven days of the spot evaluation.

3.1 Enrolled and passing-out learners of the HSC Niche-1 programme

The HSC Niche-1 programme started in 2014. A total of 10 batches of learners have been enrolled until 2024. Year-wise enrolled learners are as follows.

A total of 48,311 learners have been enrolled in the last 10 years (Table 3), of whom 802 (1.66%) were women. The highest enrolment was recorded in 2020, with 9,027 learners. However, due to COVID-19, programme activities were suspended, resulting in no admissions

Table 3. Distribution of learners based on batch/year and gender (2014–2024)

Batch/ Year	Enrolled learners		Total learners
	Male	Female	
2014	2,191	163	2,354
2015	1,414	53	1,467
2016	3,574	274	3,848
2017	6,618	49	6,667
2018	6,997	37	7,034
2019	8,063	56	8,119
2020	8,956	71	9,027
2022	3,279	25	3,304
2023	2,526	31	2,557
2024	3,891	43	3,934
<i>Total</i>	<i>47,509</i>	<i>802</i>	<i>48,311</i>

Source(s): BOU (2025)

in 2021. In 2022 and 2023, the number of enrolled learners declined significantly. Enrolment rebounded in 2024, but the overall trend suggests a gradual decline in the HSC Niche 1 programme participation. This decline is attributed to the steady recruitment of soldiers into the Bangladesh Armed Forces, many of whom have already completed their HSC before enlisting. The highest 41,641 (86%) learners of the Niche-1 programme came from the BA. BN has 5,859 (12%) and BAF has 811 (2%) learners (Table 4).

Table 4. Distribution of total learners based on the armed forces (2014–2024)

Name of the armed forces	Enrolled learners		Total	%
	Male	Female		
Bangladesh Army	40,865	776	41,641	86
Bangladesh Navy	5,842	17	5,859	12
BAF	802	09	811	02
<i>Total</i>	<i>47,509</i>	<i>802</i>	<i>48,311</i>	<i>100</i>

Source(s): BOU (2025)

3.2 Reason for admission to Niche-1 programme

The relevant armed forces – the army, navy and air force select the learners to enrol in the HSC Niche-1 programme. However, 82% of respondents said they were eager to continue their education. The reasons for admission to the programme are presented in Table 5.

Table 5. Learners' opinion scale on the reasons for admission to the HSC Niche-1 programme

Sl#	Reason for admission	Agreed	Disagreed	Neutral	Total
01	It was essential for this service	100%	0%	0%	100%
02	Essential for promotion	53%	14%	33%	100%
03	Enhance the opportunity for the UN peacekeeping mission	53%	19%	28%	100%
04	To enhance the socioeconomic status	63%	20%	17%	100%
05	Opportunity for higher education	36%	29%	35%	100%

Note(s): $N = 225$
Source(s): Survey by author in 2023

Enrolment in the HSC Niche-1 programme has been made mandatory for recruits and soldiers who have not yet obtained this qualification. As a result, all respondents (100%) acknowledged that enrolling in the programme was essential for their service (Table 5). Additionally, 53% agreed that the programme was crucial for job promotions and could benefit selection in the UN peacekeeping missions, while the remaining respondents either disagreed or chose not to respond.

Regarding motivation for enrolment, 63% of respondents stated that they joined the HSC Niche-1 programme to improve their socioeconomic status. However, 20% disagreed with this perspective and 17% remained neutral. The lowest percentage of respondents (36%) indicated that their primary motivation was to create opportunities for higher education. Meanwhile, 29% disagreed with this view and 35% remained neutral.

3.3 Passing out learners

The first final examination of the HSC Niche-1 programme was conducted in 2015. Since then, the examination has been held on schedule each year, except in 2020 due to the COVID-19 pandemic. In the 2024 final examination, learners from the 2023 batch participated as regular candidates.

A total of 37,315 learners have graduated over the past 10 years (Table 6). Amongst them, 632 (1.69%) were female and 6,775 (18.16%) belonged to the science group. The highest number of graduates was recorded in 2021, with 8,031 learners successfully passing the final examination. On the other hand, in 2023 and 2024, the number of passing-out learners has decreased significantly. In fact, enrolment in 2022 and 2023 was lower than in previous years (Table 3). As a result, the number of appearances in the examinations in 2023 and 2024 was reduced.

Table 6. Distribution of passing-out learners based on the examination year

Year	Passing-out learners		Total	Humanities	Science	Total
	Male	Female				
2015	753	62	815	618	197	815
2016	2,320	126	2,446	1865	581	2,446
2017	2,972	225	3,197	2,260	937	3,197
2018	5,658	65	5,723	4,550	1,173	5,723
2019	5,413	31	5,444	4,587	857	5,444
2021	7,986	45	8,031	6,652	1,379	8,031
2022	6,186	37	6,223	5,191	1,032	6,223
2023	3,148	15	3,163	2,774	389	3,163
2024	2,247	26	2,273	2043	230	2,273
<i>Total</i>	36,683	632	37,315	30,540	6,775	37,315

Source(s): BOU (2025)

The average passing rate for the HSC Niche-1 programme is 90.86% (Table 7). Learners from the BA have passing rates that are remarkably close to this average, while the BAF has the highest passing rate. However, the BN falls slightly below the average passing rate. There is a significant gap between enrolment and actual examination attendance. Numerous learners join the armed forces immediately after appearing for the HSC examination under various education boards. Following institutional guidelines, they enrol in the Niche-1 programme as newly recruited soldiers. However, many of these soldiers, who appeared in the HSC examination before joining the armed forces, are later found to have passed, according to the results published by the education boards. These learners do not continue with the Niche-1 programme. Additionally, some recruits are expelled from the armed forces due to illness, accidents, physical disabilities or misconduct, leading them to drop out of the programme as well.

Table 7. Distribution of enrolled, appeared and passing-out learners based on the armed forces

Armed forces	Learners up to the 2023 batch			% of passing out
	Enrolled	Appeared in the exam	Passed the exam	
Bangladesh Army	41,641	35,192	32,120	91.27
Bangladesh Navy	5,859	5,146	4,488	87.21
BAF	811	731	707	96.72
<i>Total</i>	48,311	41,069	37,315	90.86

Source(s): Programme software, ICT and E-learning Centre, BOU, January 2025

4. Result and discussion

Quality education is one of the goals of sustainable development (SDG 4). It can also contribute to accomplishing SDG 1 (no poverty) and SDG 2 (zero hunger). Education contributes to promoting enriched norms, values, behaviours and knowledge-based capacity that helps sustain a nation's overall development and prosperity (Azam, 2023). In the global setting, education has been recognised and regarded as a critical component of a country's development and success (Pusvitasari, 2021). Education is a crucial factor in determining a country's future growth. Human resource development (HRD) and higher education have a robust and optimistic connection (Brewer and Brewer, 2010). Education plays a crucial role in positively shaping human attitudes and behaviours. It enlightens, empowers and helps individuals enhance their skills and knowledge. Education is indispensable for developing individuals, institutions, society and even an entire nation. Technology-enabled learning (TEL) has become more popular in recent years, especially in the ODL arena. "Educational technologies are intended to enhance teaching-learning" (Peramunugamage *et al.*, 2024). Considering this reality, the government of Bangladesh has introduced a policy to improve the educational qualifications of entry-level armed forces personnel. To equip soldiers with the knowledge and skills required in the current century, the BA, BN and BAF are implementing this policy into practice in collaboration with BOU.

Uddin and Kabir (2024) stated that a higher level of education enhances an individual's social status, career prospects and economic growth. It is essential for developing a skilled workforce and fostering the overall progress of society. As a densely populated country, Bangladesh requires a well-trained labour force to meet its people's economic needs effectively. Bangladesh is progressing as a middle-income country with an approximate 76.4% literacy rate (MoF, 2023) and there is a growing need for armed forces personnel and their families to pursue higher education. Education is a matter of national importance and a global necessity, as modern soldiers must be prepared for international roles, including UN peacekeeping missions. In this context, the HSC Niche-1 programme is a vital academic initiative for the armed forces. This discussion focuses on the outcomes and impact of the programme.

4.1 Outcome of HSC Niche-1 programme

The outcome refers to the actual results of a programme. Over the past decade, 37,315 learners have satisfactorily completed the HSC Niche-1 programme and obtained their certificates, representing a key outcome of the initiative. However, outcomes also encompass the changes experienced by participants because of the programme. What benefits have they gained from Niche-1? The researcher surveyed learners to assess this to gather insights into the programme's impact.

Table 8. Respondents' opinion regarding the outcome of the HSC Niche-1 programme

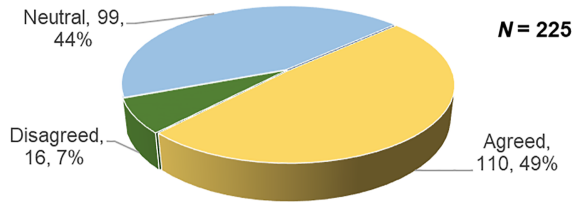
Sl#	Area of outcome	Agreed	Disagreed	Neutral	Total
01	Professional skills have developed	66%	15%	19%	100%
02	Communication skills have improved	62%	13%	25%	100%
03	The chain of command has strengthened	49%	7%	44%	100%
04	Discipline amongst the soldiers has improved	55%	23%	22%	100%
05	Attitude has changed positively	63%	18%	19%	100%
06	Loyalty to the authority has increased	50%	14%	36%	100%
07	Performance in service has developed	73%	10%	17%	100%

Note(s): $N = 225$

Source(s): Survey by author in 2023

The Bangladesh Armed Forces exclusively contributes to HRD by promoting their organized proficiencies to be involved in distinct initiatives (Uddin and Kabir, 2024). The HSC Niche-1 programme has also greatly contributed to HRD. This programme has yielded excellent outcomes. Most respondents (66%) agreed that the programme contributed to developing their professional skills. However, 15% disagreed with this view, while 19% remained neutral. A substantial number of the respondents (62%) think their communication skills have also been developed. However, 13% disagreed with them. 25% of respondents had no comment regarding this issue (Table 8).

A total of 110 (49%) respondents said that the chain of command has been strengthened for the Niche-1 programme. However, 99 (44%) respondents remained silent on this question. On the other hand, 16 (7%) respondents disagreed regarding this situation (Figure 3).



Created by author

Figure 3. Learner's opinion: the chain of command has been strengthened

Table 8 (row 05) depicts that 49% of respondents agreed that their attitude has changed positively regarding this programme. However, 18% of respondents did not agree with their colleagues. Around 19% of respondents remained silent on this question. Around 50% of respondents said their loyalty to the authority has increased. About 14% of respondents disagreed in this regard. However, 36% of respondents did not say anything against this question.

Learners were asked whether discipline in their service had improved because of the HSC Niche-1 programme or remained unchanged. The majority, 124 respondents (55%), agreed that the programme had positively impacted their discipline (Table 8, row# 04). Meanwhile, 53 respondents (23%) disagreed and 49 (22%) remained neutral.

The highest, 73%, said service performance has improved because of this programme. A total of 10% do not agree with this opinion. However, 17% kept silent on this question (Table 8, Row# 07).

4.2 Impact of the programme

The armed forces have at least three government (public) universities. They govern 4 private universities and about 31 affiliated educational institutions. Around 16,000 students are currently studying in their universities, and 14,000 students are enrolled for capacity building or training in their affiliated institutions (Uddin and Kabir, 2024). However, the armed forces have chosen flexible learning (ODL) through BOU. Ahmed et al. (2024) argued that, as the only public university in Bangladesh offering open and distance learning, BOU faces the crucial challenge of providing academic opportunities to many underprivileged people throughout the country. Over the past decade, many entry-level soldiers have graduated from this programme. There is an immense impact of the HSC Niche-1 programme in different areas. Table 9 highlights various implications of the programme.

Table 9. Respondents' opinion regarding the impact of the HSC Niche-1 programme

Sl#	Area of impact	Agreed	Disagreed	Neutral	Total
01	The scope of economic progress (no poverty, zero hunger) in the future has created	70%	16%	14%	100%
02	Strengthened job security	55%	19%	26%	100%
03	Promotion in time	47%	22%	31%	100%
04	Better performance in service	70%	6%	24%	100%
05	Senior/Higher officials are satisfied with you	77%	1%	22%	100%
06	Peer colleagues are satisfied with you	74%	11%	15%	100%
07	Relations amongst colleagues have been strengthened	87%	2%	11%	100%
08	Increased job opportunities after retirement	50%	16%	34%	100%
09	Social status has increased	51%	21%	28%	100%
10	Achieved knowledge and skills will support your institution	85%	0%	15%	100%
11	This programme enhances the country's image	56%	11%	33%	100%
12	It is supportive of alleviating the poverty of the country	47%	17%	36%	100%

Note(s): $N = 225$

Source(s): Survey by author in 2023

While the programme was integral to the service, most respondents reported benefiting from it. It has contributed to improved economic opportunities, job prospects, career advancement, knowledge and skill development, and overall job performance. The highest 157 (70%) respondents agreed that the scope of economic progress in the future has been made because of this programme. They thought this programme protected them from poverty and hunger, which are relevant to the SDGs. However, the HSC Niche-1 programme promotes quality education in line with SDG 4, while also supporting the goals of eliminating poverty (SDG 1), ending hunger (SDG 2), and nurturing decent work and economic growth (SDG 8). On the other hand, 36 (16%) respondents disagreed with this opinion. However, 32 (14%) respondents were neutral regarding this issue (Figure 4).

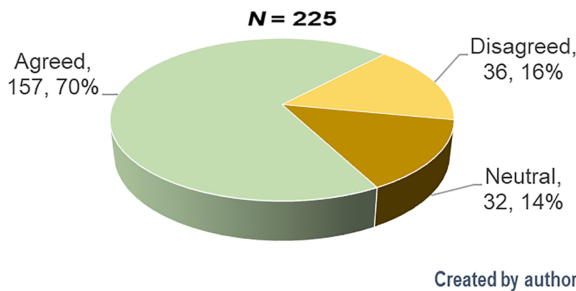


Figure 4. Learner's opinion: scope of economic progress has been made

124 respondents (55%) believed the programme strengthened their job security. Additionally, 106 (47%) respondents (armed forces learners) agreed that the program would facilitate timely promotions. On average, 18% of learners disagreed with these statements, while 20% chose not to respond. Most respondents, 157 (70%) agreed that the HSC Niche-1 programme has helped them perform better in their service. In contrast, 14 respondents (6%) stated that the programme had no impact on their performance, while 54 respondents (24%) remained neutral (Table 9, row 04). During data collection, respondents

were also asked whether their seniors or higher officials were satisfied with their performance. 173 respondents (77%) answered positively, affirming that their superiors were satisfied, while 48 respondents (23%) chose not to respond. Additionally, 166 respondents (74%) stated that their peers were also satisfied with their performance. However, 25 respondents (11%) disagreed with this view, and 34 respondents (15%) remained neutral on the matter (Table 9, row# 06). They think this education has helped to change their attitudes and behaviours positively, making them more acceptable to their colleagues.

The respondents think this programme strengthens their professional relationship. 87% of respondents believed that relations amongst colleagues have strengthened due to this programme. The sharing attitudes, helping mentality, and humanity have been improved during the study in this programme. 11% of respondents were neutral on this question. Only 2% of respondents replied negatively in this regard.

Many people think they will engage in another job after retirement. This thinking is stronger in the armed forces because of their retirement age and physical fitness. 112 (50%) respondents said job opportunities have increased after their retirement for this programme (Figure 5). On the other hand, 37 (16%) respondents said there is no effect of this programme on job opportunities after their retirement. However, 76 (34%) respondents were neutral on this question.

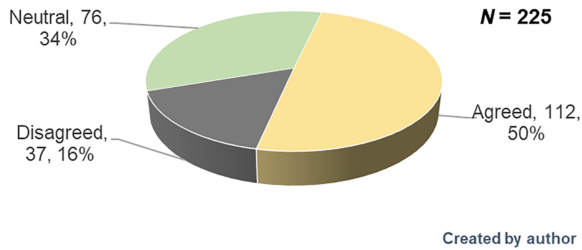


Figure 5. Learner's opinion: increase job opportunities after retirement

Education is one of the indicators of social status. Whoever learns more gets a better position in society. The HSC Niche 1 programme increased the social status of the learners. The top 115 (51%) respondents agreed that their social status has increased due to this programme. On the other hand, 47 (21%) respondents commented that this programme did not enhance their social status. 63 (28%) respondents were neutral on this question (Figure 6).

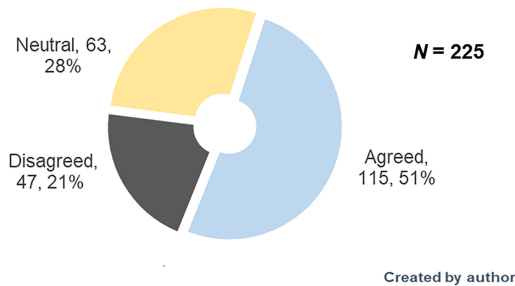


Figure 6. Learner's opinion: social status has increased

Education is a power that enlightens individuals, and it has a great influence on shaping human attitudes. The highest, 191 (85%) respondents said that the knowledge and skills they gained from HSC Niche-1 will support their professional lives. The armed forces will benefit from this programme. However, 34 (15%) respondents kept silent on this question. In this context, a statement by [Kulandaiswamy \(2002\)](#) is particularly relevant. Distance learning does not merely augment or supplement the traditional education system; rather, it characterises a divergent and independent mode of education intended to address emerging needs and different learner groups. [Tsarapkina et al. \(2021\)](#) note that the growing popularity of distance education has been extensively stimulated by technological advancement, which has broadened the scope and accessibility of this teaching-learning model. The Niche-1 learners are a specialised professional group, and distance learning is very much applicable to them. The impact and achievements of this programme proves this truth.

The highest percentage of respondents (56%, or 126 individuals) believe the HSC Niche-1 programme enhances the country's image ([Table 9](#), row# 11). They argue that, particularly in the UN peacekeeping missions, more educated soldiers perform better than those with lower education levels. As a result, their quality performance abroad positively impacts the nation's reputation. However, 11% (25 respondents) disagreed, stating that the programme does not contribute to the country's image. Meanwhile, a significant portion of respondents (33%) remained neutral.

The highest 47% (106) of respondents think this programme supports alleviating the country's poverty because skilled and educated human resources can earn more ([Table 9](#), row# 12). [Figure 5](#) showed that most respondents (50%) said job opportunities have increased after retirement. Not only after retirement, but also the present performance of the respondents is highly satisfactory ([Table 9](#), row# 04). Thus, this programme is expected to alleviate the country's poverty. Nevertheless, a considerable number of the respondents (36%) were neutral regarding this question. Many were confused about how this programme would reduce poverty. On the other hand, 38 (17%) respondents disagreed in this regard. They think there is no scope for poverty alleviation through this programme.

4.3 Qualitative data analysis

Participants in the FGDs highlighted the significant economic and professional benefits of the HSC Niche-1 programme. Firstly, job security, promotions, and selection for peacekeeping missions are closely tied to the successful completion of this programme. Secondly, obtaining a higher secondary education qualification enhances career prospects, making it easier to secure employment both during service and after retirement. Additionally, for those who leave the force voluntarily or due to dismissal, this programme improves their employability, allowing them to negotiate better salaries and benefits based on their academic credentials. As a result, it provides greater economic opportunities and professional advantages.

The participants said that the HSC Niche-1 programme upholds the social status of its learners.

They are honoured in their families, society, and offices for their better educational qualifications. They are considered skilled, eligible, and knowledgeable human resources. This programme has also opened the door for their higher education. The learners can enrol in a graduation programme at BOU, the National University of Bangladesh, or any other private university. Even after a long gap, they can enrol in higher education based on the HSC certificate.

Education makes a person enlightened, eligible, skilled, and resourceful. No educated nation is poor. There is no way to overcome the challenges of the 21st century by ignoring education. So, in light of education, poverty must be eliminated from society. [Wani et al. \(2023\)](#) stated that the ODL system has substantially impacted to this trend by offering learner-centric knowledge and skills. That is why the scope of education in the armed forces benefits a person and uplifts the institutions and the country. The armed forces' learners can serve better for their families, employer institutions, society, and the country because of their education through the HSC Niche 1 programme.

5. Conclusion and recommendations

The HSC Niche-1 programme is entirely outcome-based. Over the past 10 years, 37,315 students have graduated and earned certificates, representing about 91% of those enrolled in the Niche-1 programme. This programme has produced significant results and remarkably impacted both the armed forces and the students. Opportunities for higher education have been made available through the HSC Niche-1 programme. It has improved their abilities and self-assurance. They have achieved a good command of their service and surroundings. Peer colleagues and senior officials are happy with the maximum number of Niche-1 learners. They can maintain positive relationships with their family members and coworkers. Many students believe this programme has improved their chances of finding employment and earning money after retirement. The BOU authority has already implemented the Niche-2 (overseas) programme with the remittance earners, based on the success of HSC Niche-1. Specialised and customised programmes should be flourished to meet the Sustainable Development Goals (SDGs). Through these programmes, poverty will be lessened, unemployment issues will be reduced, and competent human resources will be generated.

The results of this study have shown that the Niche-1 programme has had many positive impacts. It also contributes at the national level by helping achieve the SDGs and the soldiers' personal, family, and socio-economic progress. It is also helping to enhance Bangladesh's reputation internationally. However, further research can be conducted on this programme's weaknesses, challenges, and potential improvements. In particular, an in-depth investigation is needed into how soldiers can enhance their skills through quality education using the ODL model while overcoming the different challenges of military life. The following recommendations are proposed based on the findings and insights gained from the present study.

- (1) The HSC Niche 1 programme should be continued and spread amongst other forces such as the Border Guard Bangladesh (BGB), Police, Ansar, Prison Guard (jail police), etc.
- (2) Customised courses should be increased to develop professional skills.
- (3) Existing customised courses must be revised, updated, and modernised.
- (4) Enrolment in higher education for soldiers should be encouraged and made easier. BOU and the armed forces should remove all the constraints in this connection.
- (5) Considering the rationality of the session, the examination year and period should be shifted from October to November of the current year to February to March of the following year.
- (6) Study hours should be declared and maintained officially in the soldiers' daily routine, and duty leave should be allowed for the learners during the examination.
- (7) All learners should attend tutorial classes and the authority may provide them with opportunities for this.
- (8) If a segment of the learners cannot attend tutorial classes due to their official duties, then the authority may arrange additional classes for them.
- (9) HSC Niche-1 is a specialised programme, so it should have different financial rules.
- (10) Based on the experience of the HSC Niche-1 programme, specialised vocational, technical, and skill development programmes can be adopted and implemented with the Bangladesh Garment Manufacturers and Exporters Association (BGMEA) for garment workers, the Ministry of Expatriates' Welfare and Overseas Employment (MoEWOE) for remittance earners, and other such organisations.

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