

7.2

Best Practices

7.2.1 Describe at least two institutional best practices (as per NAAC Format)

Response:

AISSMS College of Pharmacy strives to incorporate several best practices in the daily working of the college. Of these, the college considers the following two practices as best as they support the Vision of the Institute and would result in better achievement of educational objectives as per National Education Policy.

Best Practice 1

1. Title of Practice: Project Based Learning (In house research projects)

2. Objectives of the Practice:

Our objective is

- To provide opportunities for students from the Second year B. Pharm itself to develop an aptitude for work and a methodological approach through project based learning.
- To familiarize students with literature survey, online tools, softwares and basic statistics
- To develop the ability to present their research work at conferences and write research papers

The intended outcomes for this practice are to create a readiness for research in the minds of the students and to help them identify their niche area of interest by the time they reach Final year BPharm. The process of making presentations and writing papers besides adding valuable skills also help the students to develop confidence and managerial ability.

3. The Context:

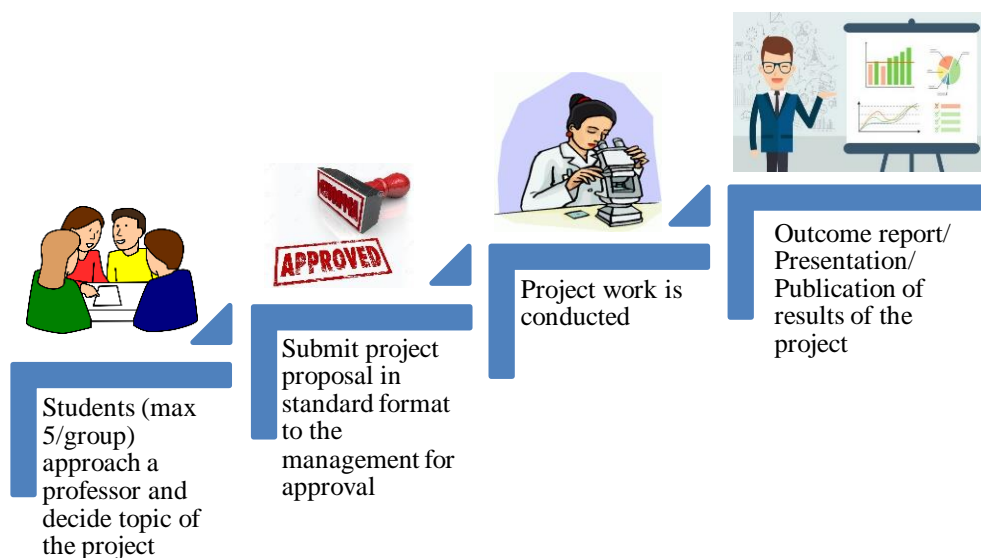
The Pharmacy curriculum involves a lot of theoretical concepts and practical skills. This ensures that the students develop into knowledgeable professionals. However, in addition to domain knowledge, the pharmaceutical industry looks for a problem-solving approach and team skills in prospective employees. Employees who have the ability and confidence to manage a project end to end are valued by both academia and industry alike.

During the orientation program and throughout the year, the students are encouraged to take up in-house projects, highlighting the features and benefits. The concept has been well accepted by the students since its inception 17 years ago. Students proactively approach the subject teachers of their choice, discuss ideas and areas of interest and conceptualize the project. Even

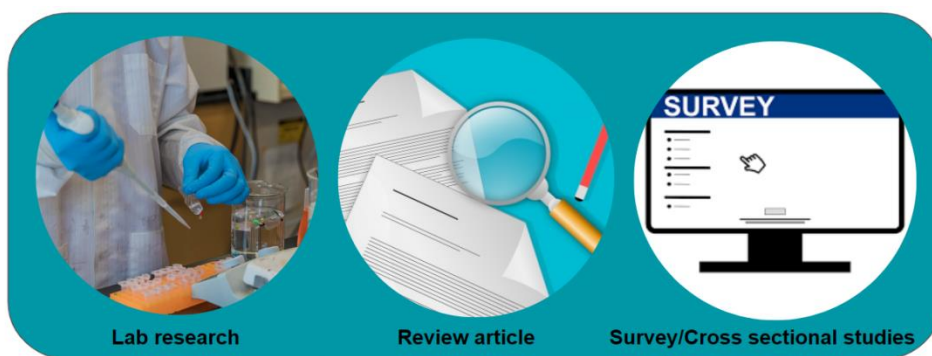
during the Covid -19 lockdown, students kept up the spirit by writing scientific review articles and conducting survey based research work/cross-sectional studies using tools like google forms instead of the conventional methods. With the easing of the lockdown and resuming of offline work, students enthusiastically once again took up laboratory based in-house projects.

4. The Practice

For this practice we have a standard structured process:



Usually, lab-based projects are encouraged, however, during the Covid-19 lockdown students took up research based on surveys and literature search (review writing). Since we received a favourable response for these aspects, they have been continued alongside the Lab based projects.



- The students are encouraged and guided to present/ publish the work at different conferences and in journals respectively.
- The College organizes two research presentation competitions to provide the students a platform to present their work and are awarded certificates/prizes to appreciate their efforts.

- 1) “Best in-house project competition” an annual event is organized for students of AISSMS college and winner group/team is given a cash award
- 2) A state level inter-collegiate competition “SYNAPSE”, which is a biennial event, is organized where students compete along with the students from other pharmacy colleges in Maharashtra.

The best projects get an opportunity to participate in “Aavishkar” and “Anveshan” the state level competition for innovative research and represent the University at state level.

Uniqueness in the context of India higher education:

Looking at the focus of the government of India on inventions and innovations, the effort is a unique one which prepares the students to work on their ideas. Many of the in-house projects involve a tangible product at the end which is further tested by scientific evaluation at various platforms where it is presented.

Moreover, the choice for higher education is a crucial and even intimidating decision for students and involves commitment of both time and finance. At AISSMS, we provide students with early opportunities for project based learning via in-house projects from the Second year B.Pharm itself. This gives students a hands-on experience of what research/working on a project is all about. We have this practice from the past 17 years. Besides higher education, this practice also is in line with the objectives of the New Education Policy (NEP) 2020 which emphasizes skill development rather than only theoretical knowledge.

The newly introduced PCI syllabus has also incorporated project work, but it is only in the last semester of Final year BPharm. Because of opportunities to work on in-house projects from second year itself, students can make a more informed choice in the Final year and Higher education.

5. Evidence of Success:

The evidence of success of the practice lies in the number of projects done (71) and number of undergraduate students participated (233) from 2018-2023. The practice has continued uninterrupted since last 17 years and we could do it in the pandemic also.

Number of publications (24) in peer reviewed journals and number of presentations (30) by undergraduate students in the past five years.

Under this practice, our undergraduate students have received recognition and numerous awards at various conferences/competitions such as Student research Congress, Metxplore, Synapse, Scoper, Ideathon, Anveshan and Aavishkar. Aavishkar is an inter university research convention organized by the Hon. Chancellor i.e. Governor of Maharashtra. It is organized at zonal level, university level and state level. Recently, it was a proud moment for AISSMSCOP when on 26th Jan 2023, our undergraduate student Avanti Puranik presented the results of their project in UG category at Rajbhavan, Mumbai. It received a lot of appreciation from Mr. Bhagatsingh Koshiyari, the then Governor of Maharashtra, Mr. Eknath Shinde, Chief Minister of

Maharashtra, foreign delegates and many other Celebrities and won the Third cash prize of Rs.25,000/- at the final round.

For projects conducted in the given Year	Award
2022-2023	National level Idea Competition (2nd Prize)
	AVISHKAR 2023 State level (3rd Prize)
	AVISHKAR 2023 University level (1st Prize)
	AVISHKAR 2023 Zonal level (1st Prize)
	Pharmathon organized by MIT's School of Pharmacy (Prize of 20,000/-)
2021-2022	National Level Inter University Research competition: Anveshan (1st Prize of Rs. 50,000/-)
	Regional Research Conference (2nd Prize of Rs. 30,000/-)
	Regional Research Conference (Consolation Prize of Rs. 5,000/-)
	SCOPER, Ahmednagar(1st Prize)
	State level poster competition organized by MMACOP Ahmednagar(3rd Prize)
	IDEATHON(1st Prize of Rs. 11,000/-)
2019-2020	SYNAPSE 2022 UG Category(1st Prize)
	National level e-Poster competition organized by DY Patil Institute of Pharmaceutical sciences and Research and APTI (Special appreciation certificate)
	METxplore 2020(2nd Prize)
2018-2019	Student Research Congress organized by SVKM's BNCOP and Mumbai University(2nd Prize)
	Preparation of Mouth dissolving tablet of BCS II drug Synapse 2018 PRIZE
	Evaluation of different polymers with respect to Donnan membrane effect. MET Explore runner up

Research/Reviews from some of these undergraduate projects have been published in prestigious journals such as Current Drug Therapy (Bentham Science, Cite score 1.1), Cardiovascular & Hematological Disorders-Drug targets (Bentham Science, Cite score 2.6), and Cell Biochemistry Biophysics (Springer Nature, Cite score 3.3) among others.

Many of the students participating in project based learning went for higher education (M.Pharm/MBA). Students aspiring to study abroad mention the outcomes of these activities in their "Statement of Purpose" (SOPs) and have obtained admission for higher education to countries such as USA, Canada with favorable impressions created due to the experience and outcomes of the project work.

The results of this practice indicate that it is highly effective in providing opportunities for translating knowledge into practice and for the overall development of the student.

Glimpses of the Project based learning (In-house project) activities and Outcomes:



In-house project competition held at AISSMSCOP on 21/09/2023



The Winners receiving the Prize and Certificate from the Judge Mr. Anand Bhide (Factory Manager, Omni Protech Drugs Pvt Ltd)



Our undergraduate student Avanti Puranik presenting the results of their project in UG category at Rajbhavan, Mumbai. It received a lot of appreciation from Mr. Bhagatsingh Koshiyari, the then Governor of Maharashtra, Mr. Eknath Shinde, Chief Minister of Maharashtra



SCOPER, Ahmednagar (1st Prize) 2021-2022

Academic Year	No. of In-house Projects	No of UG students	No. of Publications	No. of Presentations	Awards and Recognition
2022-2023	13	34	2	9	5
2021-2022	21	67	7	12	7
2020-2021	16	52	9	2	-
2019-2020	11	45	4	3	3
2018-2019	10	35	2	7	2
Total	71	233	24	33	17

6. Problems Encountered and Resources required

Problems encountered are-

1. Initially motivating the students to undertake the projects.
2. Since this practice involves second year and above undergraduate students, we need to familiarize the students to various new lab instruments and techniques. This was especially true after the lockdown as faculty members had to orient the students to lab work due to the break.
3. The research topic/review/ survey has to be selected that will help the undergraduates to clearly understand topics of current interest.
4. Teachers today have to play the role of an educator, motivator and mentor combined, rather than just a tutor. Most of the faculty members are a part of multiple departments/ committees and it becomes challenging for them to work with optimum efficiency in every department/ committee and balancing the academic schedule.

Problems were overcome by carefully planning the activities

The resources made available for smooth implementation of this practice include:

1. Internet facilities at students disposal for literature survey
2. Time management (Laboratory/equipment availability as per students academic schedule)
3. Lab chemicals/consumables specific to the project

7. Notes

The activity is very useful for implementation in other institutions as it encourages students to explore the theoretical concepts learnt, channelize their interest and get experiential learning. Subject teachers especially those of the Second year and Third year B.Pharm. should actively encourage the students during classes for this activity by discussing various research problems.

Best Practice 2

1. Title of Practice: Holistic development of students through Social outreach programmes (*Anubandh*)

2. Objectives of the Practice: The activities under *Anubandh* have a dual objective. Firstly, to create professionals who are engaged with the social fabric of the country. Secondly, to provide students with opportunities that inculcate leadership and managerial qualities. *Anubandh* serves as an interface between our students and various social units such as NSS, Datri, Eco-rangers, to provide a holistic development through social work. This results in professionals who are firmly grounded and invested in the progress of the community. It empowers the students with a deep sense of contribution to social unity and inclusivity and awareness of their potential to be architects of change in society.

Our objective is

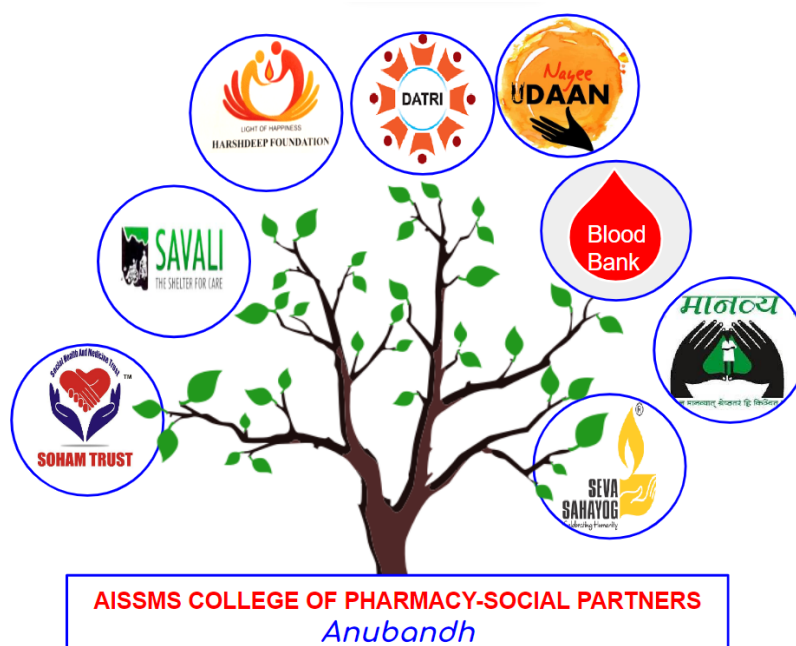
- To provide an interface between our students and organizations involved with social work at the grass root level.
- To empower our students with a sense of purpose and holistic development.

3. The Context: There are several social units doing commendable work to improve the life of marginalized sections of society, gender sensitization, women empowerment, health awareness and medical aid. They need committed young volunteers to implement their outreach activities. Young people are inherently idealistic with a desire to contribute meaningfully to the community. This gives them a sense of well-being and confidence. *Anubandh* taps into this potential so that there is a mutual benefit to the Social units as well as the students.

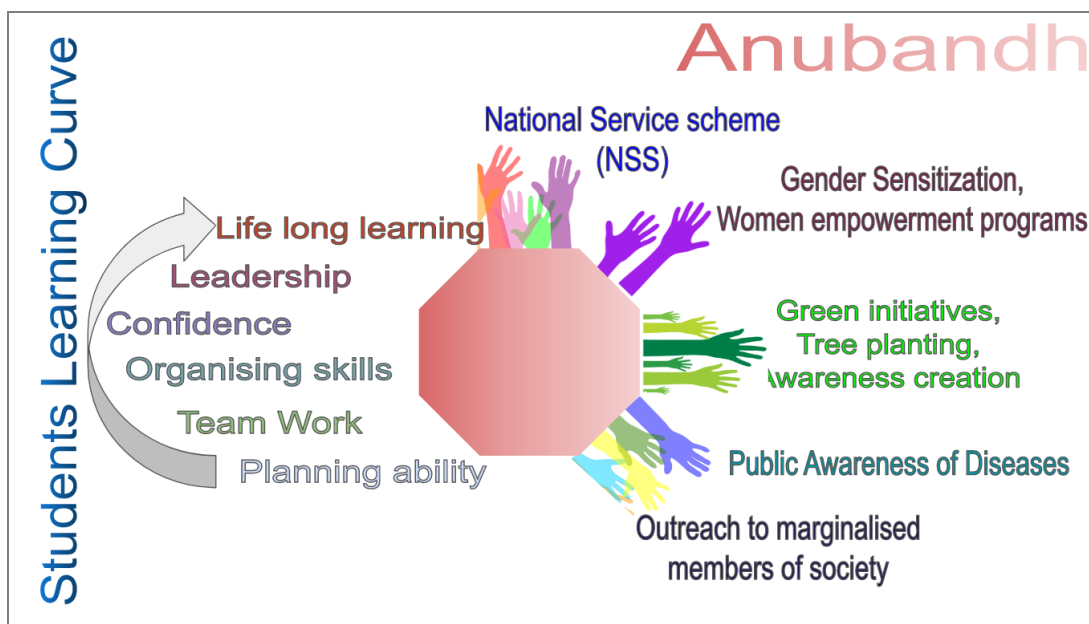
Challenges include balancing these activities which require a commitment of time while still not adversely affecting the academic schedule. Meticulous planning and encouraging the students is of utmost importance. Teaching staff members shoulder this responsibility to plan the schedule accordingly. Students are also provided a lot of scope and creative freedom for incorporating their own ideas to achieve the outcome. Students are very proactive and enthusiastic about this.

4. The Practice

For this practice, a teaching staff member is assigned to each activity such as NSS, APGA, Datri (Blood Stem cell donors registry, India-Pune Division), Seva Sahayog NGO-Pune (Women's empowerment), Manavya (working for AIDS affected children) and Vasudhara Kirloskars Eco-rangers, to provide a holistic development through social work. The students are made aware of these activities during the induction program and are encouraged to join an activity of their choice. Further, all through the academic years motivation is provided by all staff members. For some activities like NSS, there is also a screening interview process to gauge their commitment and interest level. A schedule of outreach activities is planned keeping in mind the academic schedule. Students are given guidance on planning these activities but are also provided ample scope for creative freedom to incorporate their own ideas and how to implement them to achieve the outcome. Wherever possible, MOUs with social units/organizations are drawn. Students also receive credit points for some of the activities thus providing additional motivation.



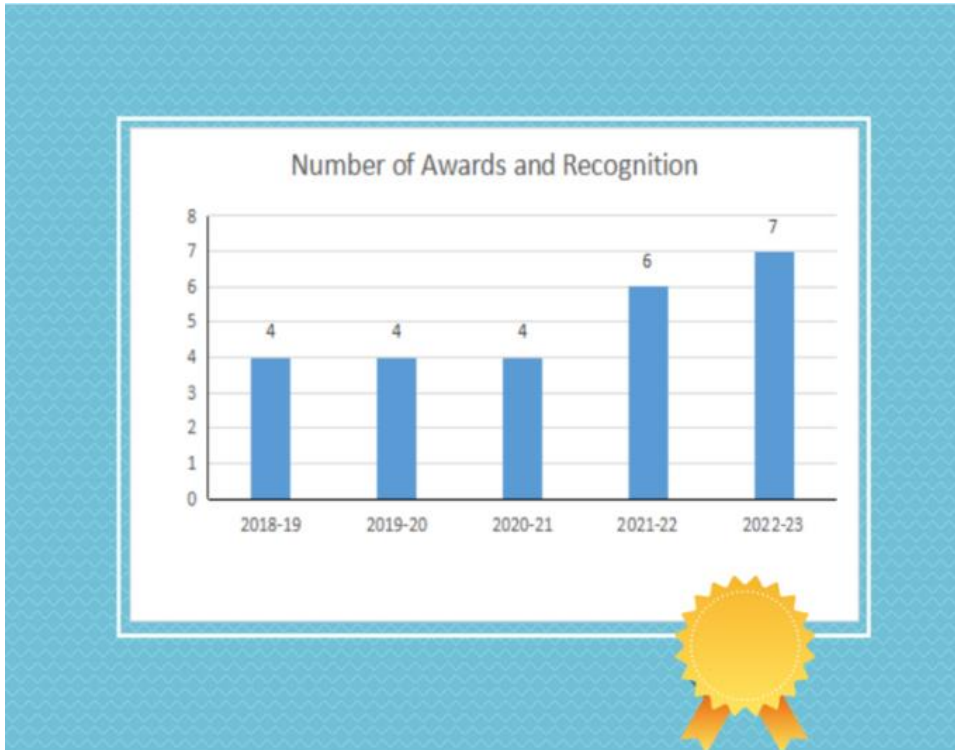
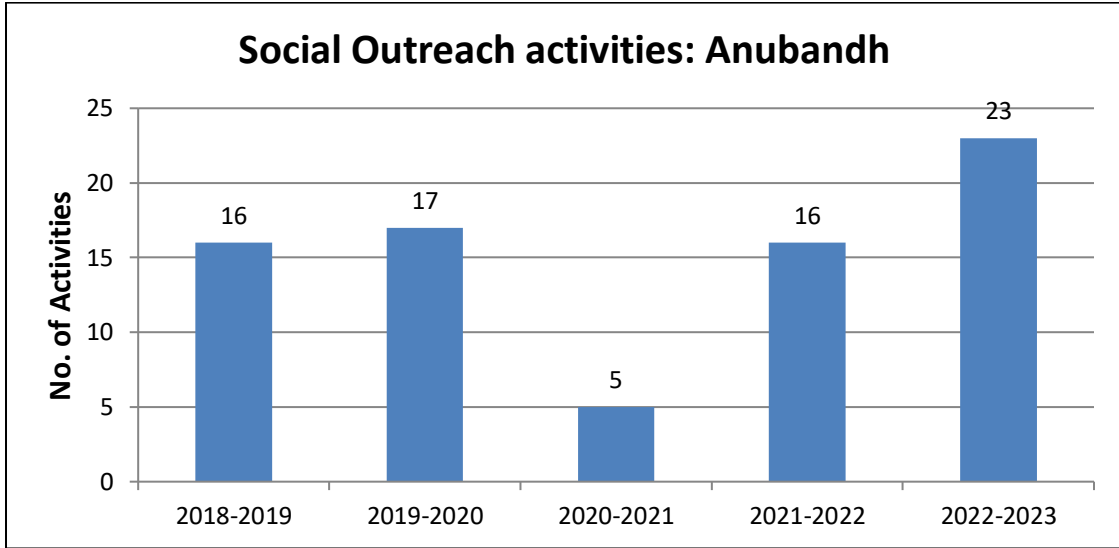
Uniqueness in the context of India higher education: Students need avenues to channelize their inherent enthusiasm and idealism. Higher education is demanding and requires long hours of study and work. During this phase, there is a risk of students falling prey to depression and frustration. Studies have shown that when young people are provided opportunities to contribute to other people’s lives and form healthy relationships with caring adults, it has a positive impact on their mental well being and life trajectories. The activities conducted besides contributing to society, also create a learning curve for the students, developing in them qualities that are essential for succeeding in higher education. This further supports the goal of the National Education Policy to inculcate human values among students of Higher education and achieve their holistic development.



5. Evidence of Success:

Several outreach programs have been organized till date. The institute has received several awards and recognition from organizations/groups that have benefited from the support of our student's participation

Academic Year	Women's Empowerment activities	Blood donation camp	Health and Social Awareness activities	Rural Outreach activities	Outreach to differently abled/needly	Green initiatives
2022-2023	6	1	4	6	1	4
2021-2022	5	-	3	6	1	1
2020-2021	2	-	2	-	1	-
2019-2020	-	1	6	6	-	4
2018-2019	2	1	6	5	-	2
Total	15	3	21	23	3	11



Problems Encountered and Resources required

During the NSS camp, lodging, boarding facilities and resources for staff and students needs to be arranged. Team management is essential and facilities for community cooking need to be made available. Initially, during interaction sessions, the rural people take some time to open up for conversation. Regarding environment conservation activities, sometimes the activities with NGOs like KVIFF clash with the exam schedule of the students thereby affecting participation.

6. Notes

Please add any other information that may be relevant for adopting/ implementing the Best Practice in other institutions (in about 150 words).

Institutes can approach their affiliated University to register for NSS and subsequently follow the schedule of the NSS cell for a range of activities. A village can be identified where there is a need for social education/ awareness with respect to disease/hygiene/girl child education. They can additionally sign MOUs with government recognized NGOs doing commendable social work in various fields and assist them in outreach activities. Involving Alumni and raising funds for medical assistance/blood donation camps is also a valuable approach.



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