

Collaborative Community Model for Developing, Disseminating & Assessing Bioinformatics Learning Resources

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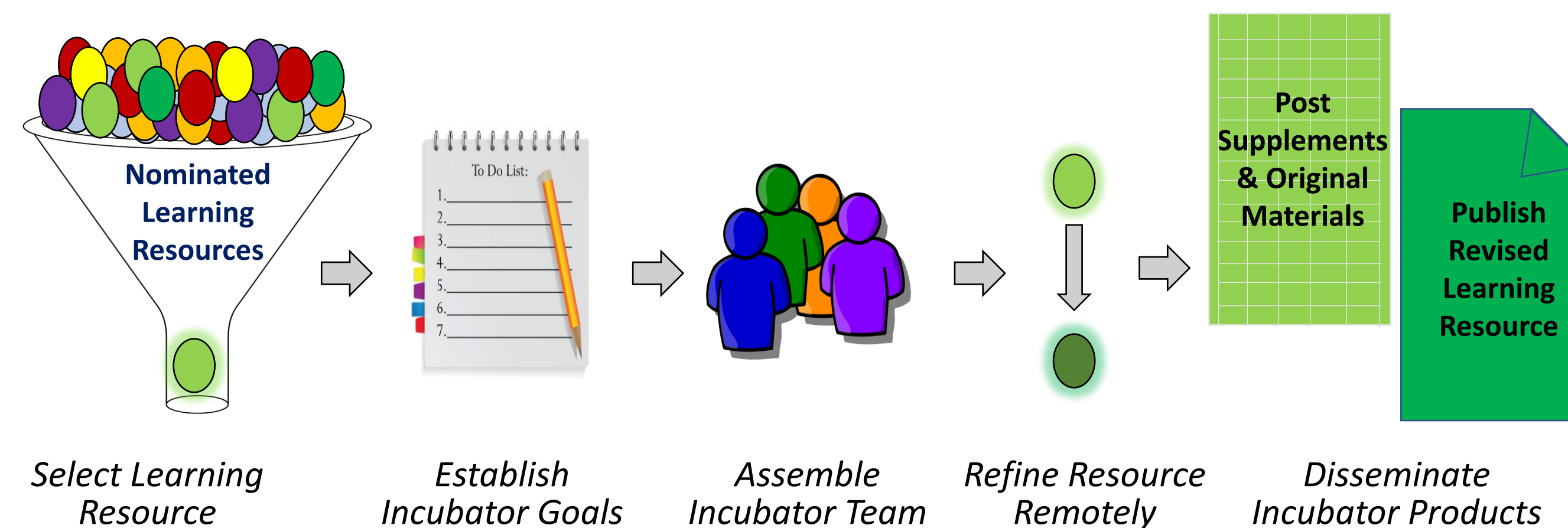
[1] Development

Incubators

Refine “home-made” learning resources for broad adoption in multiple contexts.

Short-term, small group, online collaborations connect authors with expert and novice users across US.

Incubated resources have seen strong demand (see below).



Demand for Incubated Resources

- Bioinformatics - Investigating Sequence Similarity ([3132 views](#))
- RNAseq Data Analysis using Galaxy ([1464 views](#))
- Using DNA Subway to Analyze Sequence Relationships ([1771 views](#))
- Introduction to the UNIX Command Line ([1016 views](#))
- Needleman Wunsch Exercise ([1855 views](#))
- A Fun Introductory Command Line Exercise ([1231 views](#))

[2] Dissemination

Learning Resource Collection

Curated collection of bioinformatics learning resources for undergraduate life science courses.

Dozens of high-quality resources organized by NIBLSE Core Competencies.

Includes Incubator products & other published teaching resources.

Peer-Reviewed Publication

Many Incubator products have then been formally published in peer-reviewed journals such as *CourseSource*.



QUBES Faculty Mentoring Networks (FMN)

Semester-long working groups organized by QUBES to support and guide educators implementing curricular changes.

NIBLSE-directed FMN on “Investigating Sequence Similarity” promotes integration and adaptation of our most popular bioinformatics learning module in diverse classrooms.

[3] Assessment

Collaborative Design & Administration

NIBLSE community and FMN participants support development and administration of instruments to measure bioinformatics learning gains.

Assessment in numerous and diverse classrooms provides greater statistical power to demonstrate effectiveness of a learning resource.

Links to More Information on...

... Joining NIBLSE

<https://qubeshub.org/community/groups/niblse/getinvolved>

... NIBLSE Learning Resource Collection

<https://qubeshub.org/community/groups/niblse/resourcecollection/>

... NIBLSE Incubators (Ryder et al., 2020)

<https://doi.org/10.1002/bmb.21387>

... NIBLSE Core Competencies (Wilson Sayres et al., 2018)

<https://doi.org/10.1371/journal.pone.0196878>

... Spring 2021 NIBLSE FMN on “Investigating Sequence Similarity”

<https://qubeshub.org/community/groups/niblsesp21>



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