

3RD SHAW-IAU WORKSHOP ON
ASTRONOMY FOR EDUCATION

Justifications for Teaching Astronomy in Basic Education: a look at research carried out in Brazil

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Objective



Work structure

- Objective
- Methodology
- Final considerations
- Bibliographic references

Verify the nature of the justifications and the importance that researchers in the area attribute to the Teaching of Astronomy for Basic Education, in some of the main journals in the area of teaching Science, Physics and Astronomy in Brazil.

Methodology

PRE-ANALYSIS

Choice of documents

Floating reading

- Revista Latino-Americana de Educação em Astronomia - RELEA
- Caderno Brasileiro de Ensino de Física - CBEF
- Revista Brasileira de Ensino de Física - RBEF
- Ciência & Educação - UNESP
- Ciência & Ensino - UNICAMP
- Ensaio: Pesquisa em Educação em Ciências - UFMG
- Investigações em Ensino de Ciências - UFRGS
- Revista Brasileira de Pesquisa em Educação em Ciências – ABRAPEC

- In all, 220 works on Astronomy were analyzed.

Periodical	Total
RELEA	71
CBEF	52
RBEF	90
Ciência & Educação - UNESP	2
Ciência & Educação - UNICAMP	0
ENSAIO	1
INVESTIGAÇÕES - UFRGS	2
ABRAPEC	2



EXPLORATION OF THE MATERIAL

- In this stage, 67 articles were read in full in search of arguments aimed at Basic Education;
- Those aimed at non-formal and informal education were discarded;
- Subsequently, we carried out an exhaustive reading of the excerpts that had the justifications present in the articles.

TREATMENT OF RESULTS

- We analyzed the justifications found and categorized them
- We use four major categories built from a rereading of a previous work (LEITE; SOLER, 2012)



Awakening from feelings and concerns

it would have the characteristic of awakening various types of feelings, together with different social groups, such as curiosity, interest, fascination, enchantment.



Socio-historical-cultural relevance

its development would have provided several contributions to the evolution of civilizations, such as the possibility of recording and organizing time, improvement in planting and hunting techniques, necessary guidance for great locomotion, among others.



Expansion of worldview and awareness

the study and learning of Astronomy knowledge could promote an expansion of the worldview, questions and reflections, which could also lead to a greater awareness of issues such as citizenship, environmental preservation and sustainability.



Interdisciplinarity

Astronomy would have the characteristic of being easily related to other areas of human knowledge, which would constitute a great educational potential.

Final considerations

- It can be indicated that, although there is an increase in the number of researches that seek to justify the presence and importance of Teaching Astronomy in Basic Education, the arguments pointed out are still similar to those found by Soler (2012).
- The justifications continue to be presented without theoretical foundation, that is, in a superficial way, which reveals the need for research dedicated to investigating these arguments in greater depth.



Bibliographic references

Bardin, I. (2016). Análise de Conteúdo. São Paulo: edições 70, p. 279.

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Langhi, R., Nardi, R. (2014). Justificativas para o ensino de Astronomia: o que dizem os pesquisadores brasileiros?. Revista Brasileira de Pesquisa em Educação em Ciências - vol. 14, n.1, p. 191-204.

Soler, D. R. (2012). Astronomia no Currículo do Estado de São Paulo e nos PCN. 201 p. Dissertação (Mestrado) – Universidade de São Paulo, São Paulo.

Soler, D. R., Leite, C. (2012). Importância e justificativas para o Ensino de Astronomia: um olhar para as pesquisas da área. In: II Simpósio de Nacional de Educação em Astronomia, São Paulo, p. 370-379.

