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## **Editorial**

### **2018 Open Call for Special Issues: Editor-in-Chief's Note**

Jacob Owusu Sarfo <sup>a, b, c</sup>

<sup>a</sup> KAD International, Ghana

<sup>b</sup> University of Cape Coast, Ghana

<sup>c</sup> All Nations University College, Ghana

As a world class multidisciplinary journal, the Journal of Advocacy, Research and Education [JARE] offers a hub for the publication of novel scientific research works. In this current issue, the JARE Team published ten [10] papers from Ghana, Japan, Russian Federation, Serbia and Ukraine. As we work to advance our mission, the JARE Team will also like to announce its 2018 Open Call for Special Issues.

Themes/topics for proposals must denote a scope that is important and critical for present global development and also in line with JARE's mission statement. Assessment for relevance and novelty will be carefully employed by peer reviewers to select the best proposals.

Outline for the proposal should include, but not limited to:

1. complete names, affiliations and addresses [including emails] of the guest editor[s];
2. maximum of 8,500 words [including tables, figures and references];
3. timetable;
4. 10–15 potential reviewers.

Completed proposals should be sent to the Editor-in-Chief [[✉ kad@africamail.com](mailto:kad@africamail.com)] before 31<sup>st</sup> December, 2017.

Thank you and hoping to receive your brilliant proposal.



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RESEARCH ARTICLE



ISSN 2410-4981

### **Special Articles: Commentary**

## **Opacity about COPE (Committee on Publications Ethics) Physical Address and Operations**

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### **Abstract**

Annual report and financial statement forms from 2012-2015 for The Committee on Publications Ethics (COPE) are publicly available on the COPE website. On those forms, COPE's physical address is listed as 22 Nelson Close, Harleston, Norfolk, in the United Kingdom (UK). In fact, COPE is registered both as a charity and as a charitable company. However, only one physical address is registered in the UK. Other than these documents, COPE website pages that should list the physical address, contact people, phone numbers and emails, as any transparent and socially responsible organization would do, in fact did not list such information, at all, or in full, even on the "contact us" page until about June, 2017, when the website was updated, possibly following my concerns. This registered physical address is simply a mail-drop address, but it is unclear if COPE is sharing that address with other registered UK companies and charities. Several of these aspects related to COPE's stated physical registered address correspond to some of the predatory characteristics that the now-defunct Jeffrey Beall blog used to list, and which WAME, the World Association of Medical Editors, a close COPE ally, still espouses as predatory, albeit related to publishing. In addition, documents tend to be undated and membership has been changing numbers even though the application for COPE membership was suspended in March, 2017. This paper argues that, based on an adaptation of these criteria alone, COPE displays some predatory, dishonest or misleading characteristics. These issues would not only undermine trust in COPE, but could in fact may constitute a serious breach of basic ethical principles that its global membership would expect from an ethics organization that claims to be transparent about its operations, and that cares about the fine-scale nature of this critique.

**Keywords:** Contact Us Page; Ethics; Incomplete; Mail-Drop Address; Dishonesty; Misleading; Opacity; UK.

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\* Corresponding author

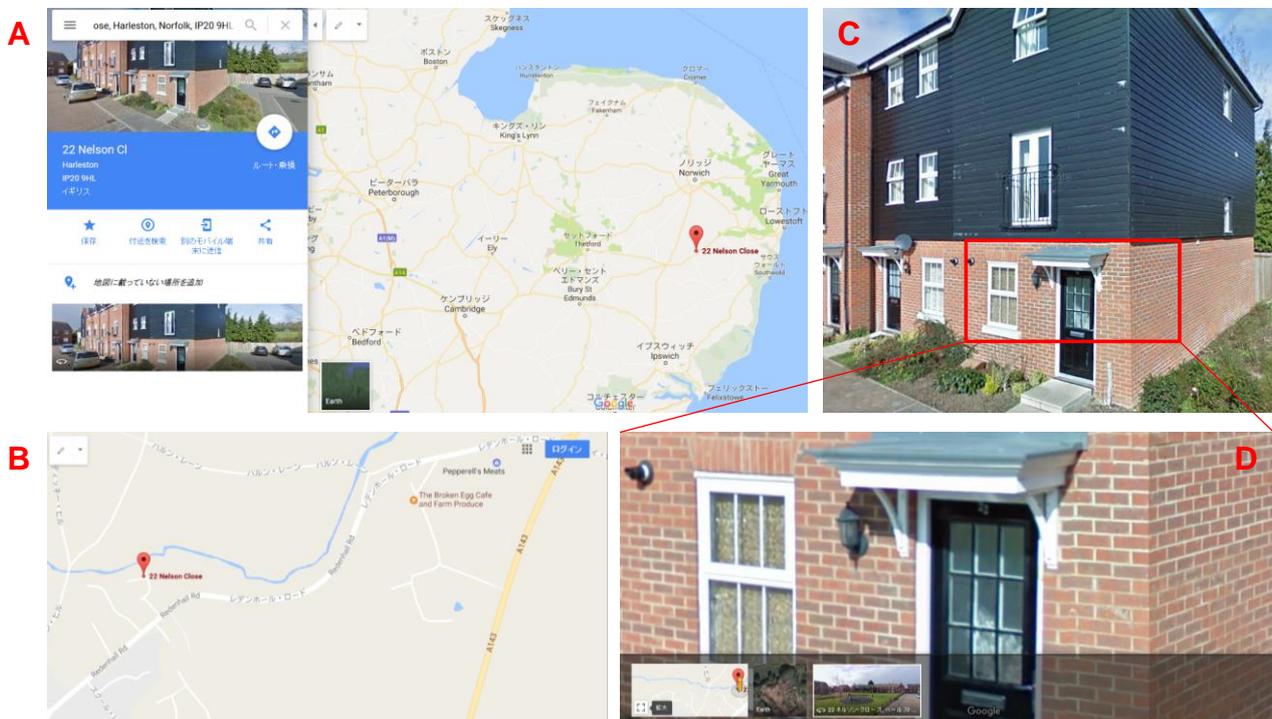
E-mail address: [jaimetex@yahoo.com](mailto:jaimetex@yahoo.com) (J.A. Teixeira da Silva)

## Introduction to COPE

The number of Committee on Publications Ethics (COPE, 2017a) members is 11,577 on a global scale (COPE, 2017b). According to COPE's governance page (COPE, 2017c), COPE was established in 2007 to "provide a range of services and products aimed primarily, but not exclusively, at editors and publishers of academic journals and designed to provide advice and guidance on best practice for dealing with ethical issues in journal publishing." To achieve this objective, it established itself as a "charitable company limited by guarantee in the UK", with a registered company number 06389120, and also as a charity, with a registered charity number 1123023 (Resource Center, 2017). Although some aspects of the company / charity may be found on the governance page, the physical address could, until May, 2017, only be found on the annual report and financial statement forms that COPE releases to the public (COPE, 2017d).

## Is the COPE Head-Office a Small, Quaint UK Village Mail-Drop Address?

For example, the 2015 statement (COPE, 2015) shows that COPE has a registered office at 22 Nelson Close, Harleston, Norfolk, IP20 9HL, in the United Kingdom (UK). Google maps (©2017 Google) places this office in the north-east of the UK, in the quaint village of Harleston, strategically placed in a nested *cul-de-sac*, and with access to the A143 to the east (Fig. 1A, 1B).



**Fig. 1.** COPE Office

Notes: Fig. 1 (A, B) Google maps (©2017 Google) places the officially stated COPE office in the town of Harleston (NE UK), with access to the A143 highway. (C, D) Close ups of the front and side of the building and of the entrance door at the designated address (22 Nelson Close, Harleston, Norfolk, IP20 9HL) shows no visible signs that there is an office, and no clear or visibly distinct signboard showing the acronym COPE. Is this building, complex or apartment at 22 Nelson Close a mail-drop address? The latter question remains unanswered and the fact remains unknown.

A close up of the front and side of the building (Fig. 1C), as well as the door (Fig. 1D) indicates, however, that there is no sign that there is an office, and no clear or visibly distinct signboard appears showing COPE. This is quite astonishing if one considers the global dimension of COPE and its membership. Why would COPE not indicate its office to the public using a bold signboard? One possibility is that the photo used by Google maps is outdated (a ©2013 date is

shown). It is assumed, because nowhere on the COPE website is it indicated otherwise, that this Harleston office thus serves as the office for both the charitable company as well as the charity. It is also not clear if this is a rented office, or if it is owned by one of the directors or trustees because their residential and/or work addresses are not indicated anywhere on the COPE website, i.e., precise basic and background information regarding COPE's physical address, and that of its 10 directors/trustees (COPE, 2017e), is unclear. Unlike other regular company or even charity websites that would have a clear "About Us" page, or a contacts page that clearly lists the physical address, a contact phone or fax number and even a contact email, the COPE website is very opaque about its physical operations and about its contacts (COPE, 2017f; Fig. 2).

**A**

**B**

**Registered number: 06389120**      **Registered office**  
**Charity number: 1123023**

22 Nelson Close, Harleston, Norfolk, IP20 9HL

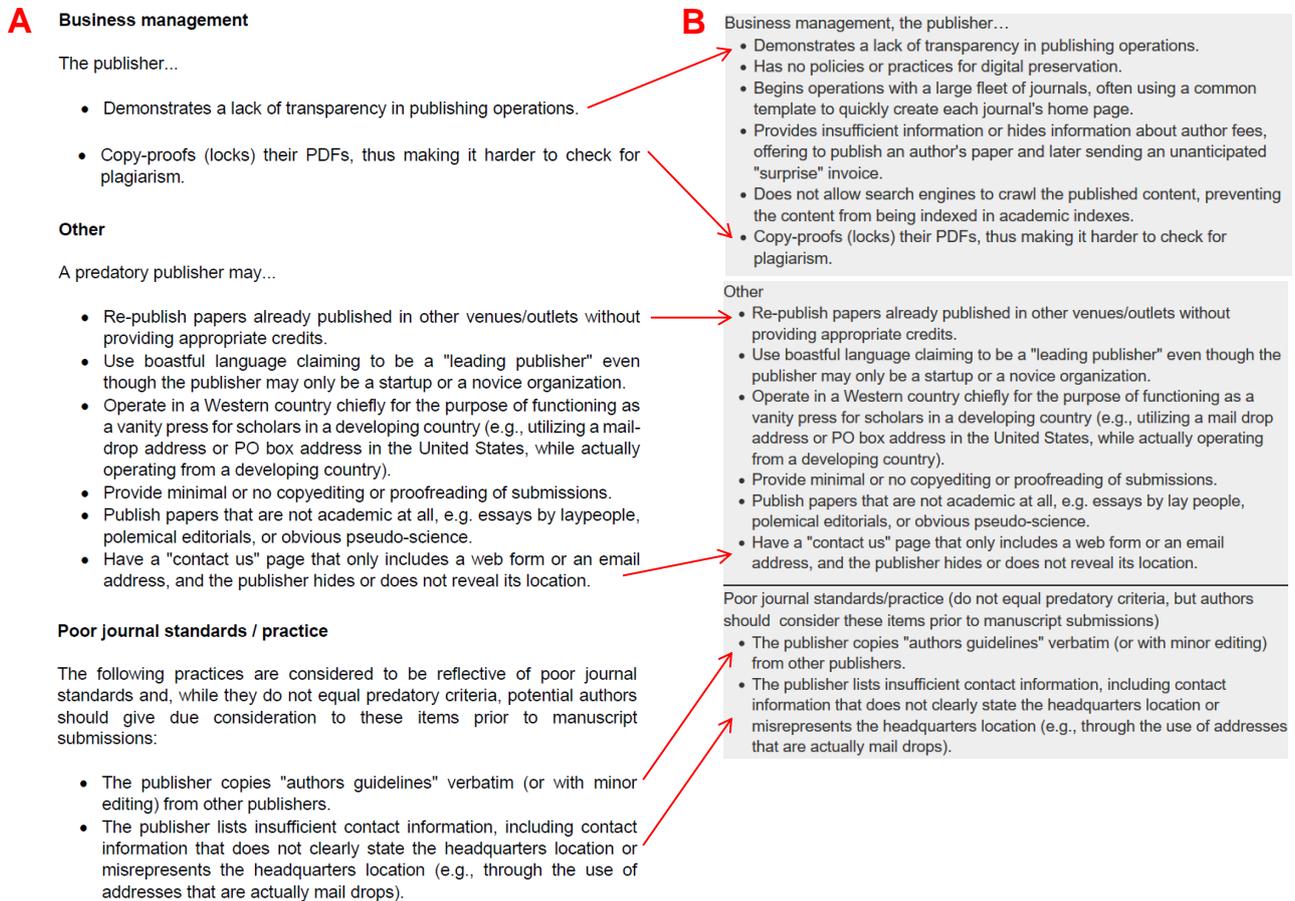
**Fig. 2.** The COPE "Contact Us" Page

Notes: Fig. 2 (A) The COPE "Contact Us" page contains no details of the physical address, no telephone or fax number, and no contact email (two separate parts spliced together to represent missing information in a visually more compact manner). Instead, an online contact form is provided, which was considered by Jeffrey Beall, and now still by WAME, the World Association of Medical Editors, to be a predatory characteristic (see Fig. 3). (B) The public is only aware of the actual company/charity details, including the physical address, by observing the 2015 annual report and financial statement form (screenshot from p. 1 and p. 3). The COPE website was updated sometime near June 2017 to reflect the physical address.

COPE was formally contacted on March 29, 2017 (Appendix 1) to request a clarification about these issues. Following a reminder on April 11, a response was received from Virginia Barbour on April 12, whose verbatim communication is also transcribed in Appendix 1. Several important aspects remain unclear, despite the formal response from Barbour, although the physical address was defined clearly on the COPE website in about May, 2017, most likely as a direct result of my queries.

These opaque aspects related to the physical address invoke a feeling of concern, because they are oddly similar to some of the predatory qualities that the now-defunct Jeffrey Beall blog used to apply to a 2015 list of predatory open access journals and publishers (Beall, 2015; Teixeira da Silva, 2017a), specifically: "Demonstrates a lack of transparency in publishing operations", "Copy-proofs (locks) their PDFs", as occurs with the annual report and financial statement forms, which are all in PDF format, but whose content cannot be copied, "Operate in a Western country chiefly for the purpose of functioning as a vanity press for scholars in a developing country (e.g., utilizing a mail-drop address or PO box address" (Fig. 3A). It is unclear if 22 Nelson Close is

in fact a mail-drop address, i.e., an address that serves simply to accumulate mail that is then rerouted to a COPE representative regularly, for example each month, for a nominal monthly or yearly fee. It is also unclear if this office at 22 Nelson Close houses other registered companies or charities, all managed under one roof, a practice that had occasionally been invoked by Beall when referring to predatory open access publishers who would use a foreign mail-drop address to feign legitimacy or to give the impression of a valid and respectful operating base.



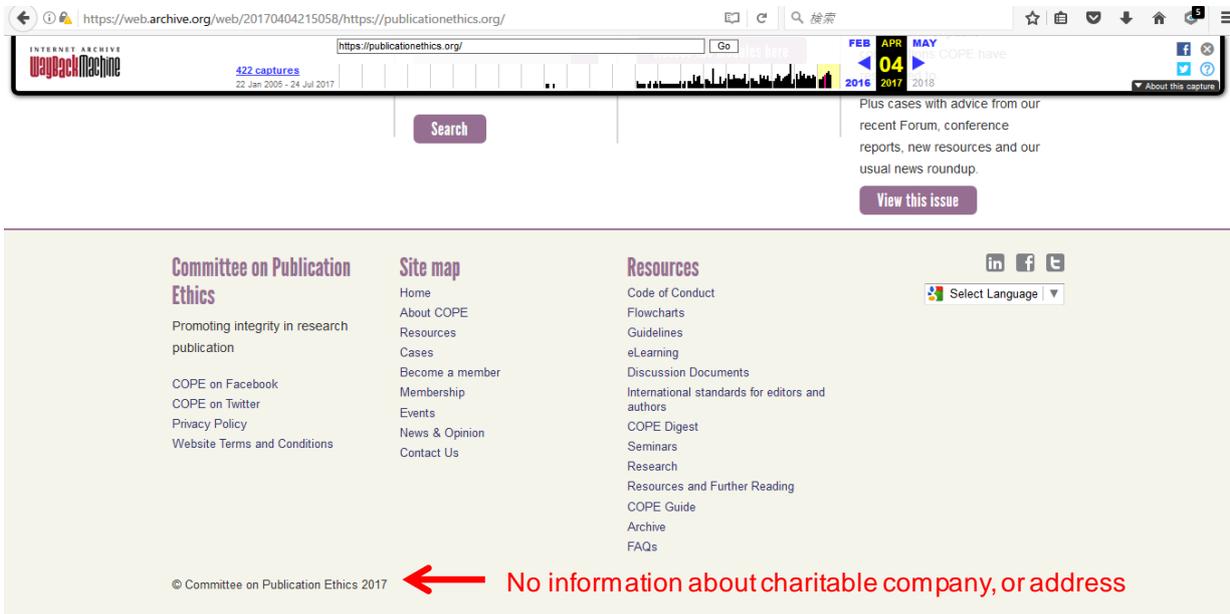
**Fig. 3.** “Predatory” Criteria

Notes: Fig. 3 (A) Criteria that had been listed on Beall’s 2015 list of predatory qualities that in fact should not have been considered valid because the Beall blog became defunct on January 15, 2017. (B) However, a COPE partner organization, WAME (World Association of Medical Editors), continues to consider the Beall list valid, in its entirety, but WAME has simply supplemented it with other criteria. “Predatory” criteria that Beall/WAME state that apply to the opacity regarding COPE’s address, after contextual adaptation

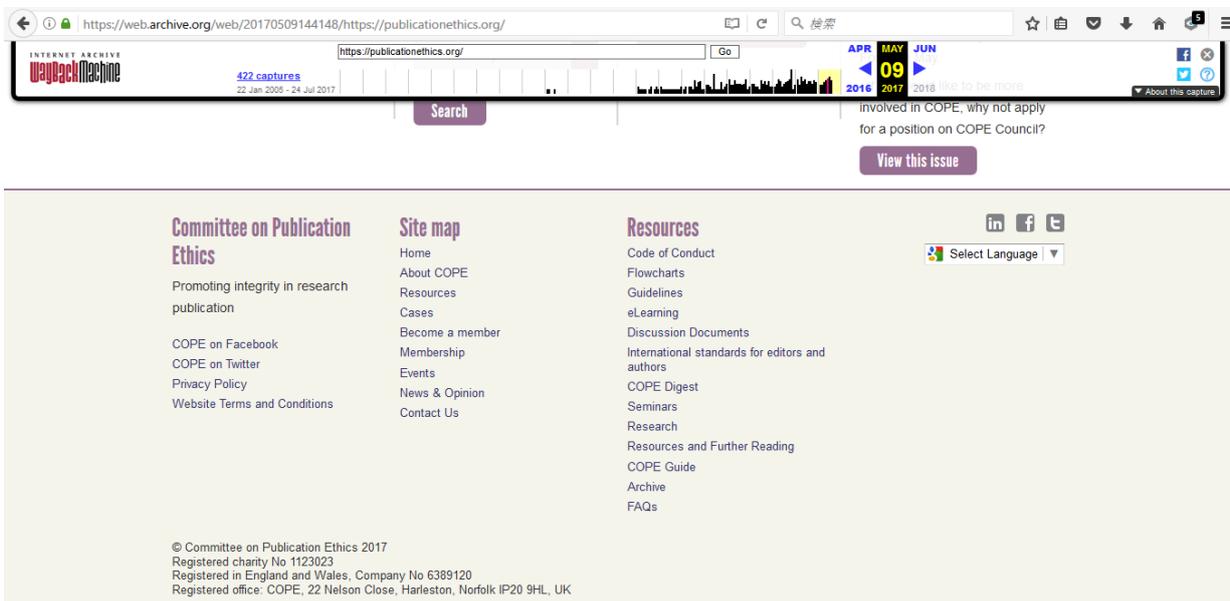
Beall’s 2015 list of predatory qualities related to publishers also included the following two clauses: 1) “Have a "contact us" page that only includes a web form or an email address, and the publisher hides or does not reveal its location”, 2) “The publisher lists insufficient contact information, including contact information that does not clearly state the headquarters location or misrepresents the headquarters location (e.g., through the use of addresses that are actually mail drops).” Iyer and Samociuk (2006) found that mail drop addresses were “associated with alarming regularity with cases of fraud and corruption”, which is not necessarily implied about COPE. These Beall-created clauses match almost perfectly with COPE’s practice. Most importantly, these clauses remain valid because World Association of Medical Editors (WAME, 2017a), a COPE partner organization (COPE, 2017g) that Virginia Barbour still officially is associated with, validates these

criteria (Fig. 3B) as it warns global academic and scholars about predatory activities of journals and publishers (WAME, 2017b).

**A**



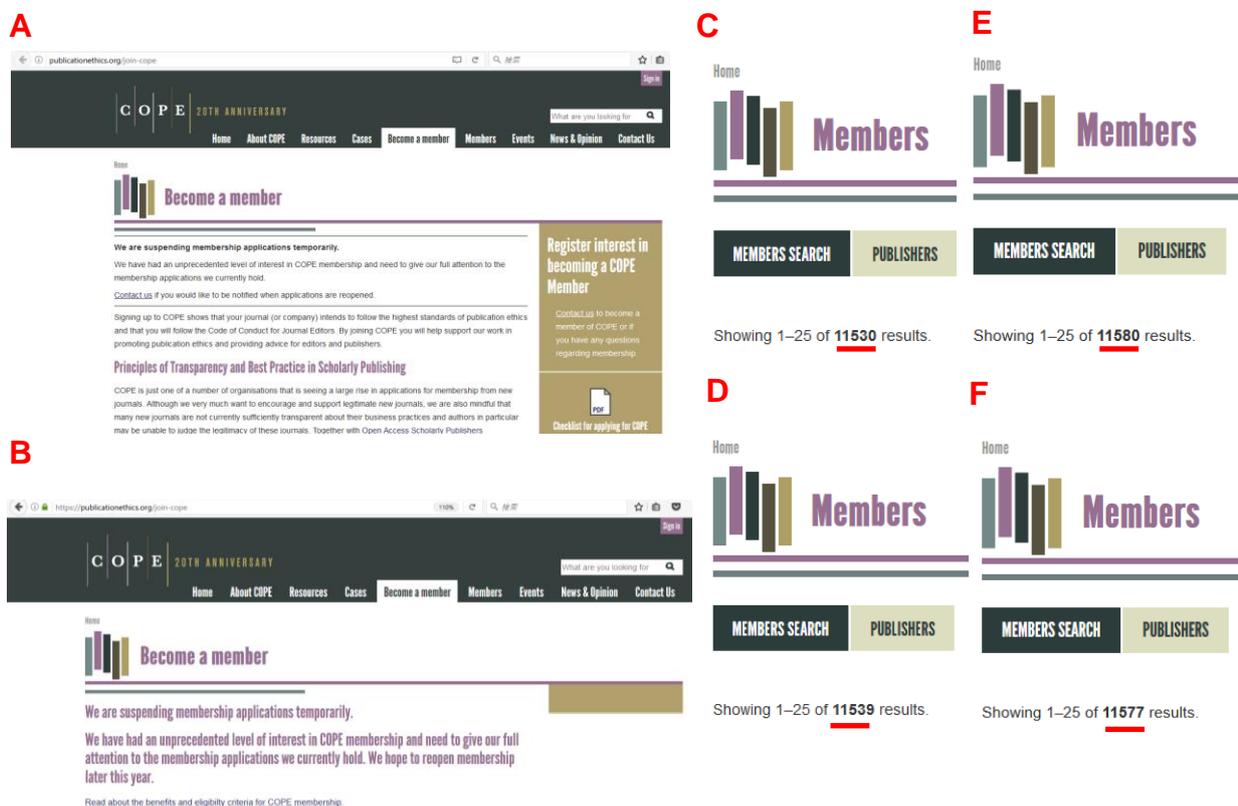
**B**



**Fig. 4. COPE Web-Site’s Update**

Notes: Fig. 4 COPE updates its web-site, after 20 years, to reflect a publicly visible indication of details regarding its charitable company status, and its physical address, most likely in response to my queries and stated concerns. Even so, the exact date of this update is unclear, sometime between April 4, 2017 and May 9, 2017. (A) April 4, 2017 screenshot. (B) May 9, 2017 screenshot. Source from Wayback Machine using COPE (2017a).

In that fortified list of criteria, WAME also warns scholars that this criterion may be predatory: “No location is listed for the journal offices, or location is very different than the location of the editors and editorial board.” In the case of COPE, trustees and/or directors could be equated with journal editors. This considered, the physical location of the 10 trustees (12 in the 2015 annual report and financial statement), who also serve as directors of COPE, is not indicated anywhere. However, it is known that the former (2012 until end of May, 2017) COPE Chair, Virginia Barbour (COPE, 2017h), resides in Queensland, Australia, on the other side of the world to the COPE registered office. If these definitions of “predatory” were to be followed strictly, as were defined by the now defunct Beall criteria, but resurrected, revalidated and fortified by WAME, then one can only conclude that COPE displayed, until about June 2017, and at least with respect to the address and/or contacts issues, predatory aspects. Although it could be argued that a charity and a publisher share different missions, ultimately, they both work to serve the academic community and the public, and thus predatory qualities that apply to one, apply equally to the other. Virginia Barbour also serves on the ethics and policy committee of WAME (WAME, 2017c), but this was not indicated on her COPE profile, i.e., this was a hidden or undeclared conflict of interest, in apparent direct contravention of several of COPE’s stated and claimed “Principles of Transparency and Best Practice in Scholarly Publishing” (COPE, 2017i).



**Fig. 5.** COPE’s Public Statement on Temporal Suspension of Membership

Notes: Fig. 5 COPE had a public statement (A, B) in March, 2017 that membership had been temporarily suspended. Despite this declaration, there were 11,530 members on March 27, 2017 (C), 11,530 members on March 30, 2017 (D) and 11,580 members on May 10, 2017 (E). Current (August 1, 2017) membership is 11,577 (F). Sources: (COPE, 2017b; COPE, 2017g).

These facts alone should draw deep concern from global academia and begin to raise red flags that not all appears to be well, or possibly even ethical, about COPE, the world’s largest and most powerful, ethics organization, or its leadership. In 2017, as COPE celebrates its 20<sup>th</sup> anniversary, the global academic community has the responsibility, despite the risks, of being vigilant, even of “ethical” organizations such as COPE, which have created a plethora of ethical rules that authors

and editor are expected to conform to. It is astonishing to notice that four key pillars of publishing ethics, openness, transparency, accountability and honesty, which COPE expects of authors that submit to its member journals, do not even feature in COPE's 2016-2018 strategic plan (COPE, 2017j). This indicates that other actual or possible predatory practices by COPE and/or its allies should be carefully examined, to examine if they match the defunct-Beall / revalidated-WAME criteria. The former should no longer be used (Teixeira da Silva, 2017b). In doing so, it will be possible to determine the micro- and macro-predatory nature of COPE's policies and behavior (Teixeira da Silva, & Al-Khatib, 2017), if any.

### **COPE: Other Opaque and Potentially Predatory Behaviors**

Separately, but linked, when browsing the COPE website, it is evident that COPE organizes many seminars, offering discounts to COPE members. This practice suggests that COPE is involved in commercial or quasi-commercial activities, and tries to lure potential members, or customers, by offering discounts. Although this practice does not sound purely charitable, nor does it appear to violate the functional limitations of a 'charitable company', COPE should clarify its position clearly on this issue. To date, despite queries to COPE, this issue has not been clarified.

Finally, Beall had also indicated one important predatory property: "Has no policies or practices for digital preservation." In the context of publishing, this indicates that if the journal ceases its operations, all content disappears from the internet. The same concern is valid for the COPE website. In fact, this concern was somewhat validated when Barbour indicated, in the same email communication on April 12, that version 1 (10 January, 2014) of "Principles of Transparency and Best Practice in Scholarly Publishing" (COPE, 2017i), which is in fact version 2 (22 June, 2015), was removed from public view because "We revised these principles so don't have the previous version on our site to avoid confusion and to ensure the correct version is used." This statement is of concern because it indicates that publicly available information can be easily struck from the public record, not allowing the public to examine, for whatever reason, the content of such documents. A Google search did in fact reveal one archived version of this document (Openscience, 2013). On April 15, 2017, a few additional queries were sent to Barbour et al., to seek clarification about some lingering aspects about unclearly or incompletely answered questions. These concerns about the nature of the COPE "office" are extremely important because, as indicated by Barbour, there is no staffed office, which complicates a logical explanation for this automatic email statement received from Linda Gough on April 18, 2017: "The COPE office is closed for the Easter holidays. We will re-open on Tuesday 18 April."

Since none of these details can be appreciated from the COPE website, except for an updated physical address made in about May, 2017 (Fig. 4), most likely in direct response to my criticisms, this paper provides an important bridge to the academic public regarding these gaps in information.

Two other aspects fortify the opacity behind COPE's operations. The first relates to dateless documents (COPE, date unknown). In general, it is expected that important documents that are made public should indicate their publication date, including blog entries. This is not the case at COPE, making such documents uncitable. As also demonstrated in this paper, blog and website content can be easily edited and thus manipulated, which are dishonest practices, especially when edits are not clearly indicated, nor when the dates when such edits were made are clearly indicated. The second worrisome aspect related to COPE opacity relates to membership numbers (COPE, 2017b). On March 27, 2017, it was learnt that COPE was temporarily suspending membership applications (COPE, 2017g). Despite this publicly stated fact, membership jumped by 9 members within 3 days, by March 30, 2017, and by more than 50 members by May 10, 2017 (Fig. 5), making that declaration – which is still in effect today – a ruse.

The analysis in this paper is highly pertinent given the fact that COPE is the *de facto* largest ethics organization in the world, given that it is celebrating its 20<sup>th</sup> anniversary in 2017, and since aspects related to opacity vs transparency of its operations go to the heart of academics' concerns about the publishing industry, which includes primarily COPE members.

### **Acknowledgement**

Screen-shots from copyrighted documents or websites taken under the fair-use agreement (Teixeira da Silva 2015a).

### Conflicts of Interest

The author has been critical of some aspects related to COPE (Teixeira da Silva, 2015b; Teixeira da Silva, 2017c). The author thanks the input and discussion offered in an old version by Alexandru-Ionuț Petrișor (University of Architecture and Urban Planning, Bucharest, Romania).

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### Appendix 1

In a bid to clarify several of these issues highlighted in this paper, seven questions were formally addressed by email to Virginia Barbour, the COPE Chair, Natalie Ridgeway, the COPE Executive Officer, Linda Gough, the COPE Administrator, and Iratxe Puebla, the COPE Assistant, on March 29, 2017. A reminder was sent on April 11, 2017. Barbour sent the following responses, also indicated below, verbatim, after each question. A final request for clarification was sent on April 15, 2017.

1) Why is COPE registered as a charity and also as a charitable company? “We are registered as a charity and a company limited by guarantee in the UK – as is normal for organisations like us.”

2) COPE’s physical address is listed as 22 Nelson Close, Harleston. Is this a mail-drop address? “22 Nelson Close, Harleston is our registered address to which mail can be sent for the purposes of being a charity and a company.”

3) Does this address serve for the address of both the charity as well as the charitable company? See answer to question 2.

4) Why is there no COPE sign on the building at the above address to indicate that this is the COPE office? No answer was provided, but most likely it is because this is a mail-drop address shared with other charities and companies, a fact that was not confirmed by Barbour or COPE.

5) Which COPE trustees/directors or committee members may be found working in this office? If you could kindly supplement that response with an indication if their presence is full time or part time. “Our Trustees/Council members are volunteers (including me) and as such they do not work on a contracted basis for set hours or from set locations. Our staff (employed and freelance) also work virtually from a number of locations and hence we don’t have a physical office where they are based together.”

6) On the COPE contact us page, why is there no physical address, contact phone, fax number or email listed? “We have a contact us link on the website: this is the means by which we can be contacted since we don’t have a physical location.”

7) Can you please provide the COPE office telephone and fax number, please? See the answer to question 6. No fax or telephone number was provided.

Barbour did add one final statement: “Our website sets out further details on our governance.”



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RESEARCH ARTICLE



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## **Special Articles: Commentary**

### **Issues with the International Committee of Medical Journal Editors (ICMJE)**

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P. O. Box 7, Miki-cho post office, Ikenobe 3011-2, Kagawa-ken, 761-0799, Japan

#### Paper Review Summary:

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#### **Abstract**

The International Committee of Medical Journal Editors (ICMJE) has established a set of recommendations, the Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals. These recommendations are not just recommendations, they are a widely accepted, or imposed, ethical rule book for the biomedical community, implying that members must be compliant with these rules. Given the importance and power of such a set of recommendations, it is important to establish clearly who, or what, exactly is the ICMJE. Given the fact that the ICMJE is a committee, there must be a leadership corps and physical headquarters. It was recently learned, through a science watchdog blog, Retraction Watch, that Darren B. Taichman, who used to be the editor-in-chief of *JAMA (Journal of the American Medical Association)*, is the current secretary of the ICMJE. Surprisingly, this information is not indicated on the ICMJE (<http://www.icmje.org/>) website. Four pillars of ethics are trust, honesty, accountability and transparency. Dr. Taichman was contacted twice to inquire about these issues. After a third request, copied to Christine Laine, a fairly superficial response was received. This commentary examines what the relative lack of transparency by Taichman and Laine indicates, and why it constitutes a risk to ethics integrity of biomedical journals around the world.

**Keywords:** Conflict of Interest, Dishonesty, Inconsistency, Opacity and Lack of Transparency, Power, Trust.

#### **Introduction: What and Who is the ICMJE?**

The International Committee of Medical Journal Editors (ICMJE, 2017a) is a very powerful group. This is because this committee created a set of rules that are, according to the ICMJE, widely employed (“followed”) by a range of biomedical journals across the globe (ICMJE, 2017b). What is noticeably odd about that ICMJE page are the following statements (Fig. 1): “The ICMJE cannot verify the completeness or accuracy of this list”, “There may be some journals that follow

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the ICMJE recommendations, but have never requested listing”, and “There may be some listed journals that do not follow all of the many recommendations and policies in the document.” What these three statements indicate is that the information on the ICMJE page regarding the journals that the ICMJE claims to be following the ICMJE recommendations may be both inaccurate and incorrect. These statements are of concern because they also indicate that the list may be incomplete. Finally, the third statement indicates that some journals claim to follow the ICMJE guidelines, but do not follow all the guidelines, making such guidelines meaningless and powerless because they are not uniformly followed, or implemented.

Journal Listing Request Form

**FAQ**

**Which journals follow the Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals (ICMJE Recommendations)?**

[View Answer](#)

**Journals Following the ICMJE Recommendations**

The following is a list of journals whose editors or publishers have contacted the International Committee of Medical Journal Editors (ICMJE) to request listing as a journal that follows the ICMJE's [Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals](#).

The ICMJE cannot verify the completeness or accuracy of this list.

- There may be some journals that follow the ICMJE recommendations, but have never requested listing.
- There may be some listed journals that do not follow all of the many recommendations and policies in the document.

Journals listed or considering listing should understand that the ICMJE periodically updates the [Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals](#).

If journals wish to be added or deleted from this list, please use the [Journal Listing Request Form](#).

Authors and others with questions about the processes or policies of a specific journal should consult that journal directly.

**Fig. 1.** Journals Following the ICMJE Recommendations

Notes: *Fig. 1* The ICMJE claims that 3147 non-member journals follow its recommendations. However, it raises strong doubt about the validity and accuracy of these members and list. Red underline indicates these inconsistencies and also troubling statements that wash the ICMJE's hands free of accountability. Source: ICMJE, 2017b.

If this list is inaccurate, and if the ICMJE is unable to verify, or take responsibility, for the accuracy of this list, monitor its members or hold them accountable for not following the ICMJE recommendations, then what is the value of this list – and thus the ICMJE – to the biomedical community? So, at the outset, one of the most important aspects about the ICMJE, its recommendations [*see Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals*] (ICMJE, 2017c), hereafter ICMJE recommendations, and the breadth of usage, is unclear, and thus unreliable. Consequently, any member of the biomedical community that reads the ICMJE website carefully is left with a first negative impression, and mistrust. Four essential pillars of ethics are trust, honesty, accountability and transparency. If the integrity of the first two pillars are at risk, when discussing issues related to the ICMJE, then how stable are the remaining pillars?

The ICMJE is one of a few globally established ethics organizations. According to the inaccurate list provided by the ICMJE, the ICMJE recommendations (latest version is dated December, 2016) are claimed to be followed by 3147 journals (number was accurate on February 23, 2017), but what is unclear is how many of these journals are (a) not following the ICMJE recommendations, and why not, and (b) how many of these 3147 journals are actually following publishing ethics rigorously? In other words, is it possible that journals or publishers that are not following strict ethical publishing principles, including “predatory” journals, are claiming to follow the ICMJE recommendations, when in fact they are not? Are unscholarly journals using the name of the ICMJE to legitimize their journals without the knowledge of the ICMJE? To better understand why this list is so inaccurate, I attempted to identify the ICMJE leadership on the ICMJE website so as to address these queries and concerns.

## Inconsistent Information Related to the ICMJE

To identify who, or what, exactly is the ICMJE, the following important statements were found (ICMJE, 2017d) [see Fig. 2A, top]: “The ICMJE (previously known as the Vancouver Group) is not an open membership organization. It is a small working group of general medical journals. Occasionally, the ICMJE will invite a new member or guest when the committee feels that the new journal or organization will provide a needed perspective that is not already available within the existing committee. Open membership organizations for editors and others in biomedical publication include the World Association of Medical Editors and the Council of Science Editors.” This indicates that the ICMJE is a closed organization, but offers two exceptions: to the World Association of Medical Editors (WAME, 2017a) and the Council of Science Editors (CSE, 2017a). Why are only these two organizations singled out?

### How can I join the ICMJE? **A**

The ICMJE (previously known as the Vancouver Group) is not an open membership organization. It is a small working group of general medical journals. Occasionally, the ICMJE will invite a new member or guest when the committee feels that the new journal or organization will provide a needed perspective that is not already available within the existing committee. Open membership organizations for editors and others in biomedical publication include the World Association of Medical Editors and the Council of Science Editors. However, if your journal follows the ICMJE's Uniform Requirements for Manuscripts Submitted to Biomedical Journals and you would like the ICMJE to include it on the list of journals that follow ICMJE policy on [www.ICMJE.org](http://www.ICMJE.org), just complete the request form. If you include the URL for your journal's web site, we can post a link from [www.ICMJE.org](http://www.ICMJE.org) to your journal.

### Which journals are members of the ICMJE?

Annals of Internal Medicine, British Medical Journal, Bulletin of the World Health Organization, Deutsches Ärzteblatt (German Medical Journal), Ethiopian Journal of Health Sciences, JAMA (Journal of the American Medical Association), Journal of Korean Medical Science, New England Journal of Medicine, New Zealand Medical Journal, PLOS Medicine, The Lancet, Revista Médica de Chile (Medical Journal of Chile), and Ugeskrift for Læger (Danish Medical Journal). However, a large number of non-member journals reports that they follow the ICMJE's Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals.

### About ICMJE

The ICMJE is a small working group of general medical journal editors whose participants meet annually and fund their own work on the Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals. The ICMJE invites comments on this document and suggestions for agenda items.

The current members of the ICMJE are Annals of Internal Medicine, British Medical Journal, Bulletin of the World Health Organization, Deutsches Ärzteblatt (German Medical Journal), Ethiopian Journal of Health Sciences, JAMA (Journal of the American Medical Association), Journal of Korean Medical Science, New England Journal of Medicine, New Zealand Medical Journal, PLOS Medicine, The Lancet, Revista Médica de Chile (Medical Journal of Chile), Ugeskrift for Læger (Danish Medical Journal), the U.S. National Library of Medicine, and the World Association of Medical Editors.

### Contact ICMJE **B**

Use this form to send comments or questions to the ICMJE secretariat. Before sending an inquiry, please consult Frequently Asked Questions, as this section of the Web site provides answers to the most commonly asked questions.

Please do not direct inquiries about individual studies, individual journal styles, or individual journal policies to the ICMJE secretariat office. The ICMJE does not archive individual journal contact information. Manuscripts intended for submission to a journal must be sent directly to the journal, not to the ICMJE.

**Note:** We cannot respond to requests for medical advice.

★ Full Name:

★ Email address:

Daytime phone:

★ Your comment or question:

0 of 1200 max characters used.

[SEND COMMENTS](#)

### **C**

### Inquiries

Before sending an inquiry, please consult Frequently Asked Questions, as this section of the Web site provides answers to the most commonly asked questions.

Inquiries about the ICMJE Recommendations should be sent to the ICMJE Secretariat office by using the form within Contact ICMJE. Please do not direct inquiries about individual studies, individual journal styles, or individual journal policies to the ICMJE secretariat office. The ICMJE does not archive individual journal contact information. Manuscripts and Conflict of Interest Forms intended for submission to a journal must be sent directly to the journal, not to the ICMJE.

## Fig. 2. ICMJE Memberships

Notes: Fig. 2 (A) The ICMJE page indicates that the ICMJE is a closed member organization. It refers to two other ethical bodies, WAME and the CSE, for those in search of open membership. It then lists the current ICMJE members. (B) The ICMJE contact page lists no physical or postal address, telephone number or email. (C) The list of ICMJE members on another ICMJE page does not correspond to the same list indicated in Fig. 2A. This page also refers to an ICMJE Secretariat office, but offers no indication of this office's address. Sources: ICMJE, 2017d (A); ICMJE, 2017e (B); ICMJE, 2017f (C).

The same page that defines what the ICMJE is and is not, lists the ICMJE member journals, as follows (Fig. 2A, bottom): “Annals of Internal Medicine, British Medical Journal, Bulletin of the World Health Organization, Deutsches Ärzteblatt (German Medical Journal), Ethiopian Journal of Health Sciences, JAMA (Journal of the American Medical Association), Journal of Korean Medical Science, New England Journal of Medicine, New Zealand Medical Journal, PLOS Medicine, The Lancet, Revista Médica de Chile (Medical Journal of Chile), and Ugeskrift for Læger (Danish Medical Journal).” It completes this list by stating that “However, a large number of non-member

journals reports that they follow the ICMJE's Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals.” The second statement is in fact irrelevant because the ICMJE has already indicated that it is unclear which of these 3147 journals actually or faithfully follows the ICMJE recommendations, and since the ICMJE seems unable to actually verify the accuracy of this list.

In a bid to clarify these issues, concerns and discrepancies, the “contact” page (ICMJE, 2017e) only lists a contact form, and no physical address, or even email (Fig. 2B). From the “contact” page, in an attempt to better understand who exactly is responsible for the ICMJE, or what the leadership structure of this organization is, the “about” page (ICMJE, 2017f) can be accessed. On that page, the ICMJE is defined slightly differently than on the ICMJE membership page discussed above, as follows: “The ICMJE is a small working group of general medical journal editors whose participants meet annually and fund their own work on the Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals. The ICMJE invites comments on this document and suggestions for agenda items.” The list of members on this list does not accurately match the list on the membership page (ICMJE, 2017b), and includes two members that do not appear on the membership page: “the U.S. National Library of Medicine, and the World Association of Medical Editors” (Fig. 2C). This discrepancy in information indicates that the ICMJE is publicly advertising two different versions of facts, or “alternative facts.”

### Relative Opacity by the ICMJE

Concerned with these discrepancies, I continued to try and identify the ICMJE leadership. On the “about ICMJE” page, the only clue as to the definitive existence of a leadership lay in this statement “Inquiries about the ICMJE Recommendations should be sent to the ICMJE Secretariat office by using the form within Contact ICMJE”.

Darren B. Taichman, MD, PhD, Secretary, ICMJE, Executive Deputy Editor, *Annals of Internal Medicine*

A

**Corresponding Author:** Darren B. Taichman, MD, PhD, American College of Physicians, 190 N. Independence Mall West, Philadelphia, PA 19106; e-mail, dtaichman@acponline.org.

B

#### Search Results

Results 1 - 3 of about 3 for **secretary**.

The URM: Twenty-five Years Old

... Augusta Litwer, a **secretary** to the eminent nephrologist Belding Scribner, grew tired of retyping his papers to change the format of references when ...  
<http://www.icmje.org/recommendations/archives/summary78-04.pdf> - 2014-02-03 - 76k

Editorial

... Internal Medicine Cynthia Mulrow, MD, MSc **Secretary**, ICMJE Senior Deputy Editor, *Annals of Internal Medicine* Catherine ...  
[http://www.icmje.org/news-and-editorials/updated\\_coi\\_jul2010.pdf](http://www.icmje.org/news-and-editorials/updated_coi_jul2010.pdf) - 2010-06-24 - 19k

Sharing Clinical Trial Data: A Proposal From the International ...

... Darren B. Taichman, MD, PhD, **Secretary**, ICMJE, Executive Deputy Editor, *Annals of Internal Medicine* Joyce Backus, MSLS, Representative and ...  
<http://www.icmje.org/news-and-editorials/M15-2928-PAP.pdf> - 2016-01-08 - 30k

C

Jeffrey M. Drazen, MD  
 Editor-in-Chief, *New England Journal of Medicine*

Peter W. de Leeuw, MD, PhD  
 Editor-in-Chief, *Nederlands Tijdschrift voor Geneeskunde (Dutch Journal of Medicine)*

Christine Laine, MD, MPH  
 Editor, *Annals of Internal Medicine*

Cynthia Mulrow, MD, MSc  
 Secretary, ICMJE  
 Senior Deputy Editor, *Annals of Internal Medicine*

Catherine D. DeAngelis, MD, MPH  
 Editor-in-Chief, *JAMA*

D

Secretariats  
 Jane Smith (*British Medical Journal*)  
 Kathleen Case (*Annals of Internal Medicine*)  
 Marcia Angell (*New England Journal of Medicine*)  
 Faith McClellan (*Annals of Internal Medicine*)  
 Christine Laine (*Annals of Internal Medicine*)+

**Fig. 3.** Relative Opacity with the Managerial Structure of the ICMJE

Notes: Fig. 3 (A) A 2016 editorial PDF file on the ICMJE website indicates that Darren B. Taichman is the 2016 ICMJE secretary, listed at the American College of Physicians (ACP), and

the Executive Deputy Editor of the *Annals of Internal Medicine* (AIM), which is published by the ACP. (B) The search for “secretary” on the ICMJE website only reveals three search results. (C) The ICMJE secretary is listed as being Cynthia Mulrow and also as the Senior Deputy Editor of AIM, while Christine Laine is also listed as an AIM editor. (D) A historical 2004 document lists Laine, in a 1978-2003 profile, as one of the five ICMJE Secretariats, alongside two other individuals from AIM. Sources: ICMJE, 2017i (A); ICMJE, 2017j (B); ICMJE, 2017h (C); ICMJE, 2017g (D).

In other words, information on the ICMJE pages is looped, but finally, the public is still left without understanding the managerial structure of the ICMJE, except for the fact that there is an “ICMJE Secretariat office”. Entering the term “secretary” into the search function of the ICMJE website indicates that the secretary, at least in January, 2016, was Darren B. Taichman, listed at the American College of Physicians (ICMJE, 2017e). Dr. Taichman was also listed on the same document as the Executive Deputy Editor of the *Annals of Internal Medicine* (AIM) (Fig. 3A). Also, while searching for the term “secretary” on the ICMJE website, a historic 2004 document was discovered that indicated that individuals representing several members of the ICMJE in 2017 were also members back in 1978-2003 (ICMJE, 2017g). That document is also important because it indicates that the ICMJE recommendations were not always known as the ICMJE recommendations, but had an earlier version, the “Uniform Requirements for Manuscripts Submitted to Biomedical Journals”, or URMs. In fact, in August of 2013, the ICMJE changed the term of their ethical recommendations for the biomedical research and publishing communities, including guidelines for authorship and conflicts of interest, from URM to the ICMJE recommendations. The second of three hits for the term “secretary” on the ICMJE website (Fig. 3B) revealed another historical ICMJE document, dated June 2010, related to ICMJE guidelines for authors’ conflicts of interest, that indicates that the ICMJE secretary was Cynthia Mulrow, who is now currently listed as the Senior Deputy Editor of AIM (ICMJE, 2017h; Fig. 3C).

So, on the ICMJE website, the public is only privy to three facts about who the ICMJE secretary is: for 1978-2003, five secretariats are listed (Jane Smith of the *BMJ* (*British Medical Journal*), Marcia Angell of *NEJM* (*New England Journal of Medicine*), and three members of AIM, Kathleen Case, Faith McClellan, and Christine Laine; Fig. 3D), in 2010, it was Cynthia Mulrow, and in 2016, it was Darren B. Taichman. Other than this, it is unknown who the 2017 ICMJE secretary is because the ICMJE website lists no structural organograms about its leadership, including the current secretary. A search for the terms “leadership”, “president”, “structure”, “director” and other terms that could possibly reveal the ICMJE website page that lists the ICMJE leadership structure, such as the President, Vice-President, Secretary, Treasurer and individuals who traditionally hold clear positions and play specific functions within a committee, revealed no such information. I was thus left with the following two queries: a) is there a *de facto* leadership with specific positions, as would occur in other organizations of equal size and repute, such as the Committee on Publication Ethics (COPE), which lists the members of its governance, trustees, council, team, sub-committees and past council members (alumni) in detail (COPE, 2017a; COPE, 2017b; Fig. 4A, 4B), WAME (WAME, 2017b; Fig. 4C) or the CSE (CSE, 2017b; CSE, 2017c; Fig. 4D), which list members of their organizations clearly to the public? b) if at least the ICMJE lists the past secretaries in documents found randomly distributed over the ICMJE website, then why can no other individuals with specified positions be found?

**A**

**B**

**C**

**D**

**Fig. 4.** Screenshots of COPE, ICMJE and CSE websites

Notes: *Fig. 4 (A) The COPE website, unlike the ICMJE website, clearly shows the different hierarchical structures that make up its organization and (B) leadership (select individuals shown, as an example). (C) Similarly, WAME is transparent about the individuals that make up its various committees, identifying its leadership clearly, like COPE (select individuals / committees shown, as an example). (D) The CSE is also transparent about the individual makeup of its leadership and committees. Notable public figures in the world of publishing ethics indicated by red arrows, some of which appear in more than one ethical organizations (brief mention in this paper only). Sources: COPE, 2017a (A); COPE, 2017b (B); WAME, 2017a (C); CSE, 2017b (top) and CSE, 2017c (bottom) (D).*

### Is the ICMJE truly a Committee?

Confused that perhaps I was unclear about what the term “committee” means, especially since the same term is also used by COPE in the title of its organization, I searched for a broad definition of the word “committee”, if possible within the context of ethics or medicine, and found the following three definitions (only partial descriptions have been written): “a body of people delegated to perform some function” (Free dictionary, 2017; Fig. 5A), “a person or group of persons elected or appointed to perform some service or function, as to investigate, report on, or act upon a particular matter” (Dictionary.com, 2017; Fig. 5B), and “a body of one or more persons that is subordinate to a deliberative assembly” (Wikipedia, 2017; Fig. 5C). The common denominator to all of these definitions is person or people. This indicates that either the ICMJE has no defined hierarchical or organizational structure, except for a secretary, or that it is hiding the details of the leadership of its organization from the public.

**A****committee** [kō-mit'ee]

a body of people delegated to perform some function.

**ethics committee** a group of individuals formed to protect the interests of patients and address moral issues. It

**B****committee** 

[kuh-mit-ee]

 
[Examples](#) [Word Origin](#)
[See more synonyms on Thesaurus.com](#)
**noun**

1. a person or group of persons elected or appointed to perform some service or function, as to investigate, report on, or act upon a particular matter.

**C****Committee**

From Wikipedia, the free encyclopedia

*For other uses, see [Committee \(disambiguation\)](#).*

A **committee** (or "commission") is a body of one or more persons that is subordinate to a [deliberative assembly](#).

**Fig. 5.** Definitions of the Term “Committee”

Notes: *Fig. 5 (A, B, C) Three definitions of the term “committee”. Sources: Free dictionary, 2017 (A); Dictionary.com, 2017 (B); Wikipedia, 2017 (C).*

The former is problematic because, if true, and there is only a secretary, then in fact the ICMJE is not a real committee and thus the name and acronym are misleading. In such a case, the ICMJE is at best, a loose group of individuals, perhaps linked by a common interest in medicine, medical writing, or biomedical ethics, not unlike a club or society, but without a defined leadership, except for a secretary, or perhaps only an administrative office, labeled misleadingly as the “ICMJE Secretariat office”. In this former case, it is incomprehensible that this leading global biomedical ethics organization would not have a well-structured, clear, and hierarchical leadership whose members and positions are open to the public and clearly demarcated on the ICMJE website. If the latter case is true, then this is even more problematic, because it indicates that the ICMJE is being blatantly dishonest and opaque about its organization’s leadership and structure, by not displaying all “people” with a portfolio, or representatives of member journals.

**ICMJE: Historical Marriage to the *Annals of Internal Medicine***

What was particularly noticeable about several of the documents found on the ICMJE website was a certain repetitive theme: the *Annals of Internal Medicine* or *AIM*. One name in particular stands out, Christine Laine, the current editor-in-chief (EIC) of *AIM* ([AIM, 2017a](#); Fig. 6A). Laine also serves on the CSE’s editorial policy committee ([CSE, 2017d](#); Fig. 6B), and is also member of the WAME ethics and policy committee (Fig. 4C), having been associated with the ICMJE for a long time, possibly as the ICMJE Secretariat from 1978-2003, as indicated by the historic 2004 PDF file indicated above. An inter-ethics organizational analysis will be discussed in detail elsewhere, and forms part of a wider project aimed at examining ethical exceptionalism among global academic ethics organizations ([Teixeira da Silva, 2017](#)).

## Biographies of *Annals* Staff

### Editor in Chief

Christine Laine, MD, MPH



Christine Laine, MD, MPH, is Editor in Chief of *Annals of Internal Medicine*. She is a practicing physician in Philadelphia and is board-certified in internal medicine. Dr. Laine is a Clinical Associate Professor in the Division of Internal Medicine at Jefferson Medical College. Dr. Laine first joined *Annals of Internal Medicine* in June 1995 as an Associate Editor and became a Deputy Editor in 1998 and Senior Deputy Editor in April 2008. In July 2009, Dr. Laine became the Editor in Chief and a Senior Vice President at the American College of Physicians.

Dr. Laine graduated summa cum laude, with a double major in biology and writing, from Hamilton College in Clinton, New York. She received her medical degree from State University of New York at Stony Brook and completed residency training in internal medicine at The New York Hospital (Cornell University) and a fellowship in general internal medicine and clinical epidemiology at Beth Israel Hospital (Harvard University). Dr. Laine earned her master of public health degree, with a concentration in quantitative methods and clinical epidemiology, at Harvard University.

Dr. Laine is active in the world of medical journalism and holds leadership positions in the International Committee of Medical Journal Editors, the Council of Science Editors, and the Ethics committee of the World Association of Medical Editors. She has been instrumental in the development of editorial policy about such issues as authorship and conflicts of interest in medical research.

Deputy Editors [Link to ICMJE not indicated](#)

Cynthia D. Mulrow, MD, MSc



Cindy is Senior Deputy Editor of *Annals of Internal Medicine* and Clinical Professor of Medicine at the University of Texas Health Science Center at San Antonio. She has been Program Director of the Robert Wood Johnson Foundation Generalist Physician Faculty Scholars Program and Director of the San Antonio Cochrane Collaboration Center and the San Antonio Evidence-based Practice Center. She was elected to the American Society of Clinical Investigation in 1997, honored as a Master of the ACP in 2005, and elected to the Institute of Medicine in 2008.

Cindy's academic work followed several themes including systematic reviews, research methodology, and chronic medical conditions. She has authored numerous papers and served on guideline panels including the U.S. Preventive Services Task Force. She currently contributes to groups who set standards for reporting research: PRISMA (systematic reviews and meta-analyses), STROBE (observational studies), and CONSORT (clinical trials). She is an amateur decorator, a gardener without a green thumb, and an avid but flagging runner and swimmer.

Darren B. Taichman, MD, PhD



Darren Taichman is Executive Deputy Editor of *Annals of Internal Medicine*. He practices Pulmonary and Critical Care medicine, specializing in pulmonary vascular disease, at the University of Pennsylvania, where he is an Adjunct Associate Professor of Medicine. Dr. Taichman first joined *Annals of Internal Medicine* as Associate Editor for Pulmonary and Critical Care Medicine in 2007. He became a Deputy Editor in 2009 and Executive Deputy Editor in 2010.

Dr. Taichman earned his bachelor's degree in 1982, a PhD in Pathology in 1992, and an MD in 1993 from the University of Pennsylvania. He completed residency training in Internal Medicine at Harvard's Beth Israel Hospital, Boston, and Pulmonary and Critical Care Fellowships at the Hospital of the University of Pennsylvania. He completed research fellowships in vascular biology at the Brigham and Women's Hospital, Boston, and the Children's Hospital of Philadelphia. He joined the faculty of the University of Pennsylvania in 2000 as the Director of the Medical Intensive Care Unit at Penn Presbyterian Medical Center and Associate Director of Penn's Pulmonary Vascular Disease Program. His research has focused in endothelial cell biology and the epidemiology of pulmonary arterial hypertension. He joined the Education and Publication Division of the American College of Physicians in 2007 as a Senior Medical Associate.

In addition to his work at *Annals*, Dr. Taichman is active in national and international leadership positions within the American College of Chest Physicians, the Pulmonary Hypertension Association, and the International Committee of Medical Journal Editors.

## **B** Editorial Policy Committee

Editorial Policy Committee Members  
Total Members: 31

[Laine](#)

Christine

Committee  
Member

Annals of Internal Medicine

Last Name	First Name	Role Or Section	Company
<a href="#">Hadsell</a>	Kelly	Chair	KWF Editorial Services

[Link to ICMJE not indicated](#)

**Fig. 6.** Profiles of Editors

Notes: Fig. 6 (A) Dr. Christine Laine is the Editor-in-Chief of the *Annals of Internal Medicine* (AIM), published by the American College of Physicians. On their AIM profiles, Cynthia Mulrow and Darren B. Taichman are listed as Senior and Executive Deputy Editors of AIM, respectively. (B) In her CSE profile, Laine does not indicate any link to the ICMJE. Sources: AIM, 2017a (A); AIM, 2017d (B).

The Laine AIM page profile states “Dr. Laine is active in the world of medical journalism and holds leadership positions in the International Committee of Medical Journal Editors, the Council of Science Editors, and the Ethics committee of the World Association of Medical Editors.” Although it has now been discovered precisely what Laine’s roles in the CSE and WAME are (even so, the name of the WAME committee is factually incorrectly stated), her precise “leadership position” at the ICMJE is not stated, neither on her AIM page, nor on any website on the ICMJE website. On the CSE page, Laine is only listed as being associated with AIM, but no mention is made about her association with the ICMJE. Does this attitude amount to an act of dishonesty,

hidden conflicts of interest (COIs), opacity, or all or none of these? Readers should also take close notice of the complexity of the CSE website URL, making it prone to errors and difficult to trace, for example in a Google search. If one scrolls down the same *AIM* page where Laine is listed as the *AIM* EIC, readers will be surprised to also observe Cynthia Mulrow and Darren B. Taichman listed as Senior and Executive Deputy Editors of *AIM*, respectively (Fig. 6A). Mulrow's profile does not indicate her past association with the ICMJE as the ICMJE secretary (see Fig. 3C), and Taichman's profile states only the following about his association with the ICMJE: "In addition to his work at *Annals*, Dr. Taichman is active in national and international leadership positions within the American College of Chest Physicians, the Pulmonary Hypertension Association, and the International Committee of Medical Journal Editors." That description is also highly misleading because it does not indicate the precise "international leadership position" title within the ICMJE, but which the public now knows is the secretary.

What these trails of hints and flecks of information indicate is that there appears to be a strong link between the ICMJE and *AIM*, which is published by the American College of Physicians (ACP). In fact, the copyright notice of the ICMJE website indicates that the copyright belongs to the ICMJE, but that the site is designed and hosted by *AIM* / ACP (Fig. 7A).

### A

The ICMJE is a small group of general medical journal editors and representatives of selected related organizations working together to improve the quality of medical science and its reporting. ICMJE meets annually to refine its *Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals*. Although ICMJE is not an open membership organization, it welcomes comments on the *Recommendations*.

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Site designed and hosted by *Annals of Internal Medicine* / American College of Physicians.

### B

#### Acknowledgments

The following members of the ICMJE helped author the 1997 version and should be acknowledged in citations of the May 2000 version.

Linda Hawes Clever, *Western Journal of Medicine*; Lois Ann Colaianni, U.S. National Library of Medicine; George Lundberg, *JAMA*; Richard G. Robinson, *New Zealand Medical Journal*; Richard Smith, *BMJ*; Bruce P. Squires, *Canadian Medical Association Journal*; Martin VanDer Weyden, *The Medical Journal of Australia*; and Patricia Woolf, Princeton University.

*Inquiries about the Uniform Requirements only should be sent to Kathleen Case at the ICMJE secretariat office, American College of Physicians-American Society of Internal Medicine, 190 N. Independence Mall West, Philadelphia, PA 19106-1572, USA. Phone, 215-351-2660; fax, 215-351-2644; e-mail: [kathyc@mail.acponline.org](mailto:kathyc@mail.acponline.org). Please do not send inquiries about individual journal styles and policies to this address.*

*This document may be copied and distributed without charge for not-for-profit, educational purposes. A digital version is available on various web sites, including the ICMJE web site ([www.icmje.org](http://www.icmje.org)).*

### C

#### Customer Service

Mail: Customer Service  
*Annals of Internal Medicine* 190 North Independence Mall West  
Philadelphia, PA 19106-1572

**Fig. 7.** Addresses of ICMJE Secretariat Office and *AIM*'s Contact Address

Notes: Fig. 7 (A) The *AIM* / ACP designed and hosts the ICMJE website, as indicated by the copyright notice. (B) An archived 2000 ICMJE document shows that 17 years ago, the ICMJE secretariat office was at an address in Philadelphia. (C) Curiously, the precise same address is listed as *AIM*'s contact address. Sources: ICMJE, 2017a (A); Wayback Machine, 2017 (B); *AIM*, 2017b (C).

The global biomedical academic public can thus safely assume, based on this strong evidence, even if fragmented, that the ACP owns, runs or manages the ICMJE, and that the senior leadership of *AIM* is also the core and/or senior leadership of the ICMJE. This is fortified by the earliest archived document about the ICMJE found on the Wayback Machine (internet archive), dated from August 2000 (Wayback Machine, 2017), which also shows the association between the ICMJE and the ACP, listing the ICMJE secretariat office as "American College of Physicians-American Society of Internal

Medicine, 190 N. Independence Mall West, Philadelphia, PA 19106-1572, USA” (Fig. 7B), which corresponds to the current physical address (AIM, 2017b; Fig. 7C). If true, then this would add a very interesting ethical and COI-based twist to the self-describing statement made by the ICMJE on its website top-page and elsewhere: “The ICMJE is a small group of general medical journal editors and representatives of selected related organizations working together” (Fig. 7A).

### ICMJE: Surprising Revelations

In a surprising and highly unexpected discovery, it was found on January 13, 2017 that Taichman is apparently the current ICMJE secretary, a fact that could not be gleaned from the ICMJE website, but was in fact discovered on the website of a science watchdog, Retraction Watch (Retraction Watch, 2017; Fig. 8A).

#### A Retraction Watch

Tracking retractions

Watch out for predatory journals, and consider retract/replace, suggests medical journal group

without comments

The challenges facing science publishing are ever-evolving, and so too are the recommendations for how to face them. As such, the International Committee of Medical Journal Editors (ICMJE) frequently updates its advice to authors. In December, 2016, it made some notable changes - specifically, asking authors to pay closer attention to where they publish, in order to avoid so-called “predatory” journals, and encouraging more authors to consider “retracting and replacing” a paper with an updated version when the problems stem from honest error (something more journals have been embracing). We spoke with Darren Taichman, Executive Deputy Editor of the Annals of Internal Medicine and Secretary of the ICMJE, about the changes.



Darren Taichman

Retraction Watch: The first set of recommendations was issued in 1978 — how have they evolved, generally speaking, since then?

Darren Taichman: The first set of recommendations (then called the “Uniform Requirements for Manuscripts Submitted to Biomedical Journals,” or “URMs”)

B I'd also like to note that, like any other member of the ICMJE, I represent my own journal, the *Annals of Internal Medicine*, on the committee. ICMJE does not have an official spokesperson - our website contains our official statements in editorials and our Recommendations document. So, while I serve as the group's secretary, what I've said here are my thoughts and others on the committee might see or state things somewhat differently.

C Established in 1927 by the American College of Physicians (ACP), *Annals of Internal Medicine* is the premier internal medicine journal. *Annals of Internal Medicine*'s mission is to promote excellence in medicine, enable physicians and other health care professionals to be well informed members of the medical community and society, advance standards in the conduct and reporting of medical research, and contribute to improving the health of people worldwide. To achieve this mission, the journal publishes a wide variety of original research, review articles, practice guidelines, and commentary relevant to clinical practice, health care delivery, public health, health care policy, medical education, ethics, and research methodology. In addition, the journal publishes personal narratives that convey the feeling and the art of medicine.

*Annals of Internal Medicine* has a large readership that includes the 148,000 members of the American College of Physicians and many more physicians and researchers worldwide who read the journal via institutional subscriptions. The most recent (2015) Impact Factor for *Annals of Internal Medicine* is 16.593—the highest of any specialty journal in the Thomson Reuters' General and Internal Medicine category. The Impact Factor is a measurement of the frequency with which the “average article” has been cited. *Annals* is ranked 5th among 151 general medicine journals. It is one of the most highly cited and influential journals in the world. Material published in *Annals* is subject to peer review and the journal greatly appreciates the efforts of the over 18,000 volunteers in our reviewer database who provide critical input into our peer review process. Acceptance rates for original research range from 6-8% in recent years. *Annals of Internal Medicine* publishes new issues twice a month on the first and third Tuesday of each month. Online-first articles are generally released on other Tuesdays.

### Fig. 8. Surprising Revelations

Notes: Fig. 8 (A) In an interview given to Retraction Watch, a science watchdog, Darren B. Taichman, who is the Executive Deputy Editor of the *Annals of Internal Medicine* (AIM), it is also revealed that he is the ICMJE secretary, a fact that cannot be gleaned from any ICMJE web-page. (B) In the same interview with Retraction Watch, Taichman indicates that different ICMJE members might use, or interpret, the ICMJE Recommendations differently, in essence, annulling their importance and effectiveness. (C) AIM boasts to be one of the world's best and most prominent medical journals. Sources: Retraction Watch, 2017 (A, B); AIM, 2017c (C).

If true, it is not clear for how many years Taichman has been the ICMJE secretary and for how many more years he will hold this position. On the same Retraction Watch page, Taichman makes quite a startling – but insightful – revelation, apart from the fact that he is the *de facto* 2017 ICMJE secretary (unless of course, the Retraction Watch page is factually incorrect) (Fig. 8B): “I'd also like to note that, like any other member of the ICMJE, I represent my own journal, the

*Annals of Internal Medicine*, on the committee. ICMJE does not have an official spokesperson – our website contains our official statements in editorials and our Recommendations document. So, while I serve as the group’s secretary, what I’ve said here are my thoughts and others on the committee might see or state things somewhat differently.” That statement leaves open a whole set of interpretations: a) that the ICMJE has no leadership, or that it does not wish to disclose that leadership publicly; b) that there are inconsistencies among ICMJE members, thus annulling or weakening the validity, in essence, of the ICMJE recommendations and the collective ethical strength of this organization; c) Taichman refers to *AIM* as “his” journal, suggesting that ICMJE members are in fact specific journals, and not publishers, as was already suggested above, although the precise representatives of each ICMJE member is unclear, as is their position or title.

### **ICMJE: Key Conclusions and Concerns**

From this analysis, five main or key conclusions can be drawn about the ICMJE:

- 1) The ICMJE cannot gain trust when the list of purported journals adopting the ICMJE recommendations is potentially inaccurate, incomplete, or even dishonest or false.
- 2) The ICMJE claims that it is “not an open membership organization”, but then, within the same clause, states that it opens two exceptions, to WAME and to the CSE. Making exceptions to the rule within an ethical organization can be construed as being unethical, or an act of cronyism.
- 3) The ICMJE secretary, Dr. Darren B. Taichman, did not respond readily to my queries, and it is unclear if this is a policy in place towards the wider academic public. This relative silence may undermine trust in this organization because open communication with members of global academia and the public are essential aspects of an open and transparent organization, even if the queries are critical. Dr. Taichman’s and the ICMJE’s lack of transparency also undermines this organization’s accountability. The ethical bedrock of this organization is thus questionable
- 4) ICMJE membership lists are inaccurate and inconsistent. When different versions of the most basic information about an organization exist, i.e., “alternative facts”, then there is reason for concern. The precise leadership positions and the portfolio of specific individuals within the ICMJE cannot be identified on the ICMJE website. How is the biomedical community expected to trust, and respect, the ICMJE recommendations, when information about their own leadership structure and membership sits on highly opaque ground?
- 5) Misleading information and opacity may pose serious risks to the biomedical community, and to society.

Despite all of the clues that were discovered about this organization’s past structure, no clear organogram exists on the ICMJE website describing the current leadership or their exact positions, including the precise position of Mulrow, Taichman and Laine. The opacity about the leadership structure of this ethical organization is deeply troubling and of great immediate concern and risk to the biomedical community because the ICMJE and several of its members are deeply entrenched within the editor boards of several leading ethics and biomedical journals of some top for-profit publishers, and because several ethics organizations are so intrinsically interlinked, including the ICMJE, CSE, COPE and WAME, as are their leadership figures (as will be discussed in detail elsewhere). The ethical integrity of the ICMJE is thus questioned, as is that of *AIM*, which describes itself, boastfully, as “the premier internal medicine journal” with a JCR journal impact factor of 16.593 ([AIM, 2017c](#); Fig. 8C). The issue of editorial opacity, lack of integrity and then possibly issues, such as hidden COIs, with papers published in *AIM*, which is an ICMJE member, may be highlighted on a whistle-blower website, PubPeer, as has occurred with the January 2016 critique of an editorial published in *AIM* ([PubPeer, 2016](#)).

The global biomedical community is faced with an astonishing amount of threats and risks, challenges and concerns, which have added exponentially to academics’ stresses and responsibilities. Academics seek guidance from leadership that is honest, modest, open and transparent, frank and courteous, communicative and open to dialogue and receptive to new ideas and suggestions. It is the experience of the author of this paper that few of these characteristics have been displayed, in particular when dealing with the issues described in this paper. The ICMJE, like a handful of other ethics organizations around the world, has an extremely high responsibility towards its public image, and that image must be impeccable. This is also because the ICMJE and the ACP / *AIM* are deeply involved in socio-political issues, including the influence on policies at the highest political levels within the USA ([AIM, 2017d](#); [AIM, 2017e](#); Fig. 9A, 9B),

and must thus be seen as being fully open and honest, accountable and transparent. As it currently stands, this is not the case. This paper serves a vote of no confidence regarding the ICMJE and thus its recommendations which are being imposed upon the global biomedical community.



**Fig. 9.** Socio-Political Involvement of ICMJE and the ACP/AIM

Notes: Fig. 9 the *Annals of Internal Medicine (AIM)*, published by the American College of Physicians (ACP), is deeply involved in state of health, society and politics in the USA. (A) A personalized response published in AIM in response to President Donald J. Trump's attempted ban on individuals arriving from 7 predominantly Muslim countries. (B) The ACP is very interested in moderating White House policies related to health care reform, specifically the American Health Care Act, likely seeking to influence health care policies. Sources: AIM, 2017d, 2017e (bottom, right inset) (A); ACP, 2017 (B).

### ICMJE Formal Response

After contacting Taichman and/or Laine for the third time, a formal response was finally received on March 16, 2017, as indicated next, verbatim. Although one or two minor aspects of the concerns expressed in this article about the ICMJE were resolved, the vast majority were not, fortifying thus, the concerns. The email received was:

"Dear Dr. Silva,

1. As is indicated at our website where journals who have indicated following the ICMJE Recommendations are listed:

"The following is a list of journals whose editors or publishers have contacted the International Committee of Medical Journal Editors (ICMJE) to request listing as a journal that follows the ICMJE's Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals.

- The ICMJE cannot verify the completeness or accuracy of this list.
- There may be some journals that follow the ICMJE recommendations, but have never

requested listing.

- There may be some listed journals that do not follow all of the many recommendations and policies in the document. "

2. As is indicated at our website, contacting the ICMJE is done through <http://www.icmje.org/about-icmje/contact-icmje/>

3. The ICMJE purposefully does not have a hierarchical structure or officer positions with the exception of a secretary, who has an administrative role.

4. The Annals has served as the secretariat for the ICMJE, and thus hosts the ICMJE website ([icmje.org](http://www.icmje.org)) at the server of its publisher, the ACP. The ACP has no other role in the ICMJE.

5. Queries are to be addressed through the ICMJE's contact box, as noted above in #2.

Thanks for your interest in ICMJE.

Darren Taichman, MD, PhD"

In a bid to expand the public discussion among academics, an open question was posed at ResearchGate ([ResearchGate, 2017](#)). Screenshots taken of publicly available websites, including those of the ICMJE, are under fair-use ([Copyright.gov, 2017](#)).

### Conflicts of Interest

In 2011-2012, the author challenged the ethics of the ICMJE's multiple copies of the URMs published on PubMed in the mid to late 2000s by the ICMJE, without ever receiving any suitable explanation. The author believes that his challenge to the ethics of these multiple copies led to the change in name from URMs to ICMJE recommendations.

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RESEARCH ARTICLE



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## Articles and Statements

### **Environmental Factors and their Influence on Seasonal Variations of Schistosomiasis Intermediate Snail Hosts Abundance in Weija Lake, Ghana**

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#### **Abstract**

Schistosomiasis, which remains a key Neglected Tropical Disease, is facilitated by the population dynamics of the intermediate snail host that is reported to be influenced by environmental factors. In Ghana fewer studies on environmental factors have been carried out with the advent of climate change and its predicted influence on the ecology of vectors of diseases that tend to be focal. This study therefore sought to investigate the influence of environmental factors on seasonal variations on intermediate snail hosts abundance. Snails were sampled monthly at a demarcated zone on the Weija Lake near Tomefa, a schistosomiasis endemic community using the scoop net and hand picking techniques. A total of 2,612 snails including 739 dead/empty shells were collected throughout the sampling period. Of this number, 1,367 (inclusive of 600 dead) *Biomphalaria pfeifferi* and 1,245 (inclusive of 139 dead) *Bulinus truncatus* were collected. Total dissolved solids, temperature and turbidity significantly influenced snail abundance ( $p < 0.05$ ). Five aquatic plant species were found to support both snail species, with *Ceratophyllum* spp being the most common. Snail abundance varied seasonally with TDS, turbidity and temperature identified as important limiting environmental factors to intermediate snail hosts abundance. Aquatic plant species influenced snail abundance by providing shelter, food and sites for oviposition.

**Keywords:** *Biomphalaria pfeifferi*, *Bulinus truncatus*, Environmental Factors, Intermediate Hosts, Schistosomiasis.

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## Introduction

Schistosomiasis is a resurgent parasitic disease widely distributed in the tropical belt of the world (Akande & Odetola, 2013; Ayanda, 2009; Hamed, 2010; World Health Organization [WHO], 1999; Zhou et al., 2008) with the highest proportion in sub-Saharan Africa (Barsoum, Esmat, & El-Baz, 2013; Utzinger, N'Goran, Caffrey, & Keiser, 2011; WHO, 2013). Transmission takes place in areas where intermediate snail hosts are present and human population is frequently in contact with infested water (Sturrock, 1993). This makes the intermediate snail hosts indispensable as they serve as obligatory hosts for the larval stages of schistosome parasites to complete their life cycle (Hamed, 2010; WHO, 1957).

Three snail genera: *Biomphalaria*, *Bulinus* and *Oncomelania*, all of the family Planorbidae are mainly responsible for the transmission of schistosomiasis globally (WHO, 1998) but two of them, *Biomphalaria* and *Bulinus* spp. which transmit *Schistosoma mansoni* and *S. haematobium* respectively are responsible for the disease transmission in Africa with Ghana not being an exception (WHO, 1957).

Following the construction of numerous dams across river bodies throughout Ghana (Danso-Appiah, 2009; Grosse, 1993; WHO, 1993; Yirenya-Tawiah Rashid, Futagbi, Aboagye, & Dade, 2011; Zakhary, 1997), the two forms of schistosomiasis became endemic in focal areas of all the ten regions of the country at different prevalence rates according to the International Association for medical Assistance to Travellers (IAMAT, 2012). However, urogenital schistosomiasis is described to be far more prevalent than intestinal schistosomiasis due to its predominant and extensive distribution (Hamed, 2010; McCullough, 1959).

The spatial distribution and transmission pattern of schistosomiasis have been reported by previous works elsewhere to be determined by abiotic and biotic factors (Amsalu, 2010; Marti, Tanner, Degremont, & Freyvogel, 1985; Zhou et al., 2008). Environmental factors like rainfall and temperature, pH, salinity and conductivity, turbidity among others were identified by these works to shape the fecundity and population density of the intermediate hosts (Akande, & Odetola, 2013; Ayanda, 2009; Jordan, & Webb, 1982; Smyth, & Montgomery, 1962). Transmission pattern of schistosomiasis is reported to be seasonal, a situation which results in population densities of schistosome parasites, intermediate snail hosts as well as transmission rates of the parasites varying considerably with the season (Davies, 2004; Grosse, 1993; Ngele et al., 2012).

Biotic factors such as availability and density of aquatic macrophytes have also been reported to play vital roles in the distribution of snails in different parts of Africa (Ofoefie, 1999). These aquatic plants serve as substrates for feeding and oviposition as well as providing protection from high water velocities and predators such as fish and birds (Mott, 2004).

Intermediate snail hosts occur in various fresh water bodies that are subject to changes in environmental conditions. There is therefore the need to understand how intermediate snail hosts abundance will be affected by seasonal changes which mainly influence the prevailing abiotic and biotic factors of their habitats. Again, the period of highest relative abundance must be known if control measures are to be successfully implemented given that the development of an effective control strategy requires the study of population dynamics of the intermediate hosts and its relation to environmental factors (Hussein, Obuid-Allah, Mahmoud, & Fangary, 2011). The purpose of this study was therefore to investigate the influence of seasonal variations on abiotic and biotic factors and their effect on the abundance of intermediate snail hosts.

## Materials and Methods

### Study site/area

The study was conducted in the Weija Lake at a site near Tomefa, a fishing community about 17 km west of Accra with Global Positioning System coordinates of N 05.57379° and W 000.37714°. Tomefa is one of the schistosomiasis endemic communities located within the buffer zone of the Weija Head works in the Ga South Municipal District. It has a population size of 1,500 people with most of the residents being Ewes (Kaledzi, 2011). The populace has no access to potable drinking water and consequently depend solely on the untreated lake water for recreation, consumption and daily chores. Also, many of the community dwellers have no toilet facilities and therefore excrete faeces and urinate indiscriminately around and along the banks of the lake. These activities predispose them to the schistosome parasites infective to man making the disease endemic in the community.

The community lack access to any health facility and therefore travel long distances across the river or by road to Weija and beyond to receive treatment. The local climate found in Tomefa like the rest of Ghana is tropical with distinct dry (November–March) and rainy (April–October) seasons. The mean annual rainfall in Greater Accra ranges between 10.0 mm and 222.0 mm with the highest amount of rainfall recorded in June. The mean annual temperature ranges between 22°C - 33°C.

### ***Snail Sampling and Collection***

The two known intermediate hosts of schistosomiasis in Ghana, *Bulinus* and *Biomphalaria* spp. were sampled along the Weija Lake at Tomefa. This site was chosen on the basis of evidence of the presence of intermediate host snails and extensive human water contact during previous studies by other researchers. Snail sampling was carried out in sites where there were major human water contacts along the bank of the Lake.

Snail collections were done at monthly intervals from June, 2013 to March, 2014 except for November and December, 2013 due to unmotorable access. Each sampling was carried out by three trained snail collectors using standard snail scoops or occasionally by forceps between 09±00 and 12±00 hours. Snails were collected from only the portion of the lake where prominent human activities are carried out. The same collectors scooped for snails throughout so as to achieve some level of standardized sampling effort.

The scoop net was swept through the lake (an average of four times per sampling section) amassing snails that clung to aquatic plants. Snails found along the bank within sampling area where water contact behaviour was rife were also collected with the aid of forceps, and those found attached to aquatic plants carefully picked using forceps.

Collected snails were washed clean of any debris with distilled water and placed in beakers filled with distilled water to the neck region and then covered with net mesh to prevent snail escape. The snails were then transported to the laboratory, examined and separated into different containers according to their genus. At the laboratory, each genus was transferred into labelled aquaria supplied with aged water with the aid of forceps and counted.

Habitat characteristics of the intermediate host snails were also observed and recorded appropriately with the presence or absence of aquatic plant species noted. All the aquatic weeds associated with the snails that were not easily identified were collected and sent to the herbarium section of Plant and Environmental Biology, University of Ghana for identification.

### ***Physico-Chemical Parameters Assessment***

Physical and chemical parameters like temperature, conductivity and salinity, pH, turbidity and total dissolved solids (TDS) of the lake were measured each time of snail sampling.

Temperature, conductivity, TDS and pH were measured in-situ using a multi-parameter tester (HANNA Combo: H 198129; Michigan, USA). The pH electrode/ Temperature sensor/EC or TDS probe of the multi-parameter were immersed into the lake to give the required readings.

A sample of the lake water was also fetched from the sampling site into two 500ml bottles and sent to the laboratory to measure for turbidity and salinity. This was repeated during every snail collection. Salinity was measured using a refractometer (Aquafauna Bio-Marine Inc., model ABMTC; Hawthorne California, USA).

Turbidity of the sample was also measured with a Turbidimeter (24347 HACH model 2100P; Loveland Colorado, U.S.A) having a range from 0.01 to 1000 NTU in automatic range mode and accuracy of ± 2% of reading plus stray light from 0-1000 NTU. Monthly rainfall data within the sampling period were sourced from the client service department of the Ghana Meteorological Agency, Accra.

### ***Data Analysis***

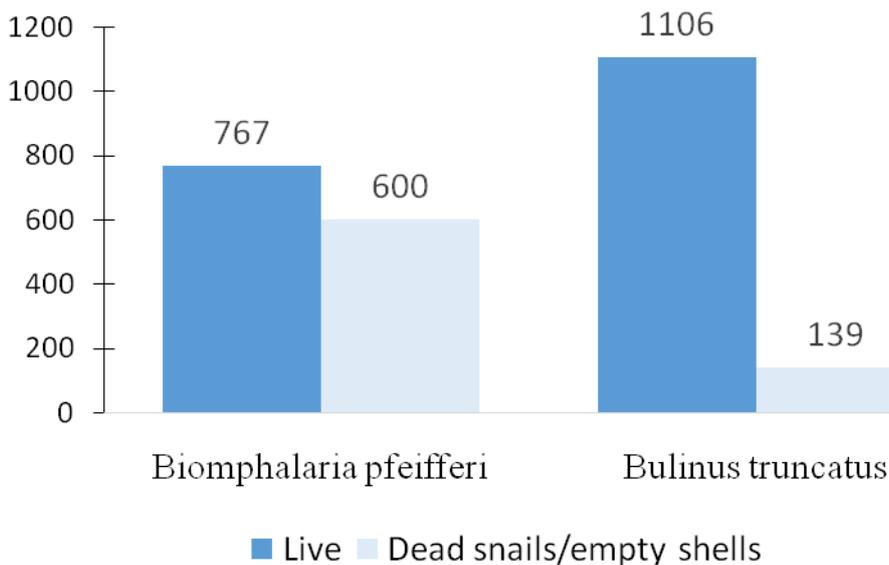
After each sample collection, data were coded and edited in MS Excel (2013) and results presented with tables and graphs. The normal Q-Q plot was used to determine the normality of data which informed the choice of test to use. Data were further analysed with the Student *t* test in Statistical Package for Social Scientists (IBM SPSS Statistics 20; New York, USA). Pearson correlation coefficients were also calculated between populations of *Biomphalaria* sp. and *Bulinus*

sp. and environmental factors to assess their relationships. All analyses were carried out at alpha level of 0.05 with a  $p$ -value < 0.05 considered as statistically significant.

## Results

### Snail Collection

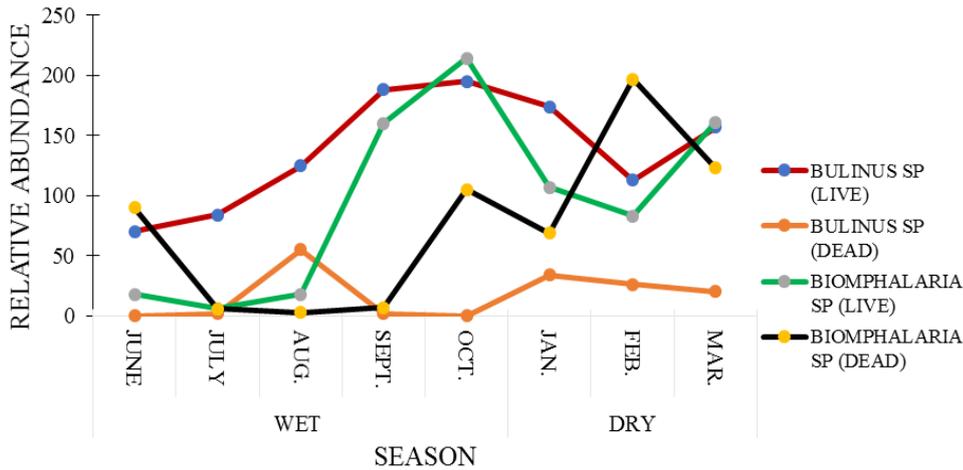
A total of 2,612 snails consisting of 1,873 (71.07%) live and 739 (28.29%) dead snails or empty shells were collected. Snails collected were identified as *Biomphalaria pfeifferi* and *Bulinus truncatus*. Of the total snail collection, there were more *B. pfeifferi* (1,367) comprising 767 (56.10%) live and 600 (43.89%) dead snails/empty shells than *B. truncatus* (1,245) which also comprised of 1,106 (88.84%) live and 139 (11.16%) dead/empty shells (Figure 1). Significantly, more dead snails/empty shells of *B. pfeifferi* were collected than dead snails/empty shells of *B. truncatus* ( $t=-2.280$ ,  $p=0.039$ ). Although higher numbers of live *B. truncatus* were collected as compared to live *B. pfeifferi*, no significant difference was observed ( $t=1.311$ ,  $p=0.211$ ).



**Fig. 1.** Relative abundance of *B. pfeifferi* and *B. truncatus* during the study at Tomefa Seasonal Variations in Snail Abundance

Relative abundance of live *B. pfeifferi* and *B. truncatus* varied between the wet (June–October, 2013) and dry (January–March, 2014) seasons (Figure 2). Nonetheless, no significant difference existed between the abundance of live *B. truncatus* and *B. pfeifferi* in the wet ( $t=0.977$ ,  $p=0.357$ ) and dry ( $t=1.056$ ,  $p=0.351$ ) seasons. There were significant differences between the abundance of live *B. truncatus* in the wet ( $t=5.134$ ,  $p=0.007$ ) and dry ( $t=8.143$ ,  $p=0.015$ ) seasons, unlike that of live *B. pfeifferi* which varied significantly only in the dry season ( $t=5.073$ ,  $p=0.037$ ).

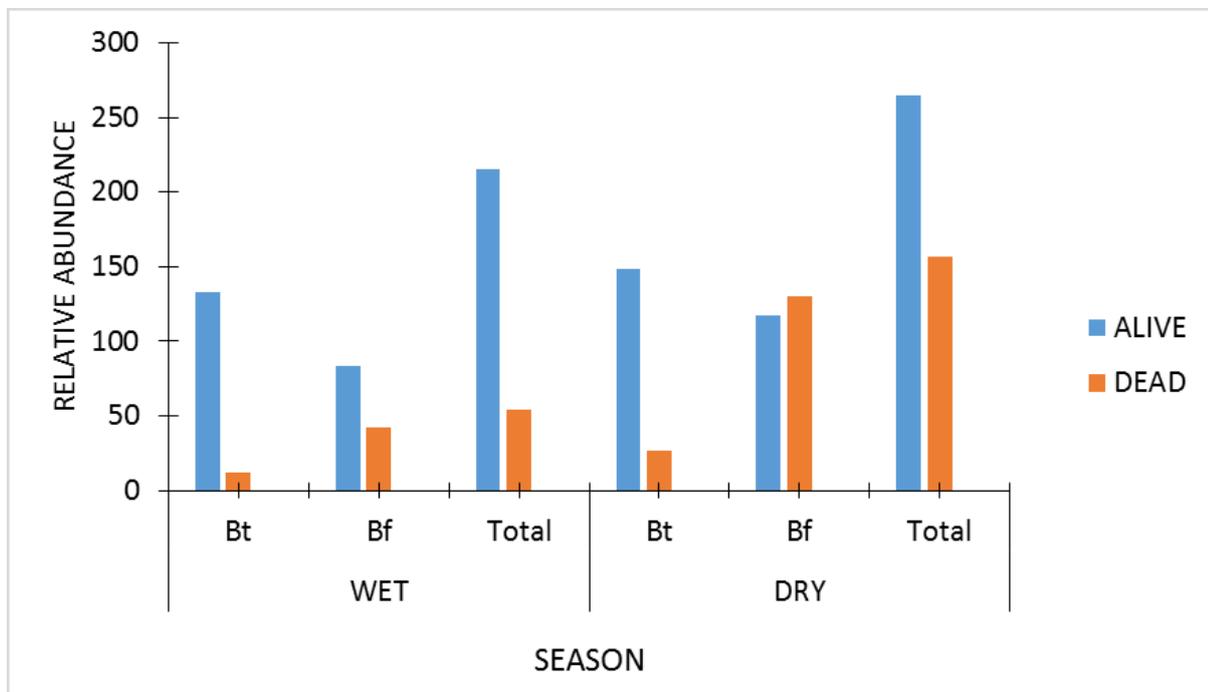
The number of dead snails/empty shells of *B. pfeifferi* and *B. truncatus* also fluctuated between the two seasons with both species recording two peaks; one in the wet season and the other in the dry season as compared to the single peak that was observed in the wet season for live snail species (Figure 2). Dead snails/empty shells of *B. pfeifferi* initially peaked in the late wet season in October with the second peak, which was higher than the first, recorded in February in the dry season (Figure 2).



**Fig. 2.** Relative abundance of live and dead *B. pfeifferi* and *B. truncatus* in relation to the months of the wet and dry seasons

Significant differences were found in the number of dead snails/empty shells of *B. truncatus* ( $t=6.576, p=0.022$ ) only in the dry season whereas no significant differences were found in the mean number of dead snails/empty shells of *B. pfeifferi* in both seasons. There was no significant difference between dead snails/empty shells of *B. pfeifferi* and *B. truncatus* even though a higher number of dead snails/empty shells of *B. pfeifferi* was collected compared to *B. truncatus* in the two seasons ( $p < 0.05$ ).

Altogether, the geometric mean abundance of both snail species was higher in the dry season as compared to the wet season (Figure 3) However, there was no significant difference in snail abundance between the two seasons ( $t=-1.515, p=0.056$ ).



**Fig. 3.** Relative abundance of live and dead *B. pfeifferi* (Bf) and *B. truncatus* (Bt) in relation to the seasons

### Seasonal Variations in Abiotic Factors

Except for salinity values (parts per thousand) that were consistent throughout the entire sampling period, all the other physico-chemical parameters displayed seasonal and monthly variations throughout the two seasons (Table 1).

**Table 1.** Seasonal and Monthly variations of Physico-Chemical Parameters measured during snail collection in the Weija Lake at Tomefa from June-October, 2013 and January-March, 2014

Season	Month	Physico-Chemical Parameter						
		pH	TDS (ppm)	Conductivity ( $\mu\text{S}/\text{cm}$ )	Temp. ( $^{\circ}\text{C}$ )	Turbidity (NTU)	Salinity (‰)	Rainfall (mm)
Wet	June	8.09	216.0	431.50	28.45	26.00	0.2	110.50
	July.	8.37	202.5	365.75	27.55	19.75	0.2	21.80
	Aug.	8.21	187.5	377.10	25.45	20.25	0.2	14.00
	Sept.	8.39	186.5	372.00	27.70	14.00	0.2	51.10
	Oct.	7.71	176.0	386.00	30.50	12.00	0.2	16.60
	Mean	8.15	193.5	386.47	27.93	18.4	0.2	42.8
Dry	Jan.	8.20	184.5	401.00	30.25	9.50	0.2	5.50
	Feb.	7.51	184.0	401.00	31.00	15.50	0.2	78.10
	Mar.	8.90	187.0	408.25	32.38	12.00	0.2	136.10
	Mean	8.20	185.16	403.41	31.21	12.33	0.2	73.23
	Total Mean	8.17	190.5	392.83	29.16	16.13	0.2	54.21

**Table 2.** A summary of one sample student *t* test of physico-chemical parameters measured during snail collection at Tomefa

Abiotic Factors	N	Mean	Std. Deviation	<i>t</i>	<i>df</i>	<i>p</i>
pH	8	8.17	0.43	54.112	7	0.000
Temperature ( $^{\circ}\text{C}$ )	8	29.16	2.26	36.506	7	0.000
Turbidity (NTU)	8	16.13	5.48	8.317	7	0.000
TDS (ppm)	8	190.50	12.65	42.597	7	0.000
Conductivity ( $\mu\text{S}/\text{cm}$ )	8	392.83	21.80	50.957	7	0.000
Rainfall (mm)	8	54.21	49.15	3.120	7	0.017

### ***Snail Abundance in Relation to Abiotic Factors***

Pearson correlation test used in examining the relationship between measured abiotic factors and snail abundance revealed that some abiotic factors had no significant ( $p < 0.05$ ) influence on the abundance of *B. pfeifferi* and *B. truncatus* during the two seasons.

However, a significantly strong positive correlation was found between water temperature and dead *B. pfeifferi* collected compared to a non-significant relationship found between temperature and dead *B. truncatus* and both snail species collected alive.

There were also significant negative correlations between TDS and live snail species. However, no significant relationships were observed between TDS and number of dead snail species. Similarly, no relationship was observed between salinity and snail abundance since salinity values were constant throughout the sampling period.

Monthly conductivity measurements fluctuated throughout the snail collection period yet a Pearson correlation analyses revealed a non-significant relationship between snail abundance and monthly conductivity values. It also revealed a non-significant relationship between pH and snail abundance. However, abundance of live snail species was negatively but significantly correlated with turbidity with no significant association observed between turbidity and number of dead snails. Amount of rainfall fluctuated throughout the sampling period; nonetheless there was no significant relationship between rainfall and abundance of snail species.

### ***Vegetation that Supported Snails Species***

*Biomphalaria pfeifferi* and *B. truncatus* were found attached to five common aquatic plants namely *Ceratophyllum* spp., *Nymphae* spp., *Neptunia oleracea*, *Typha* spp., and *Polygonum senegalense*. *Ceratophyllum* spp., *Nymphae* spp. and *Typha* spp. were present throughout the sampling period although their densities varied according to the seasons with relatively higher numbers observed in the wet season as compared to the dry season. *Polygonum senegalense* and *Neptunia oleracea* on the other hand were found to support intermediate snail hosts mostly in the wet season (June-October, 2013). Overall, *Ceratophyllum* spp and *Nymphae* spp. supported the largest numbers of the two-snail species even though relatively, more *B. truncatus* were found attached to *Ceratophyllum* spp. Quite a number of *B. pfeifferi* were also picked from the bank of the lake.

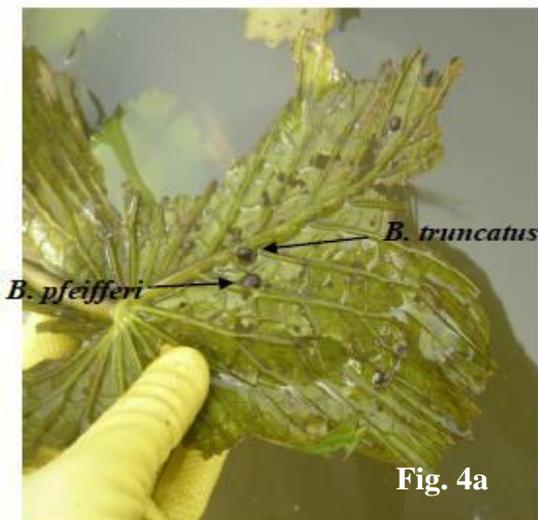


Fig. 4a



Fig. 4b

**Fig. 4a & 4b.** *B. pfeifferi* and *B. truncatus* (indicated by arrows) attached to *N. lotus* and *Ceratophyllum* sp. respectively

*Bulinus truncatus* and *B. pfeifferi* were consistently found attached to the stem of *Nymphae* spp., and the stem and roots of *Typha* spp., *Polygonum senegalense* and *Neptunia oleracea*. On a number of visits, *B. pfeifferi* and *B. truncatus* and their respective eggs were found attached to debris like polythene bags, fishing nets (Figs 4c & 4d) and sacks along the bank of the Weija Lake.



**Fig. 4c & 4d.** *B. truncatus* and *B. pfeifferi* attached to polythene and fishing net respectively

### Discussion

There have been a number of reports on the transmission of schistosomiasis along the Weija Lake (WHO, 1993) and riparian communities including Tomefa with its distribution principally determined by intermediate hosts *Biomphalaria* and *Bulinus* spp. (Abonie, 2013). Studies have suggested that the distribution of intermediate host is influenced by environmental conditions (abiotic and biotic factors) which inadvertently affect disease transmission dynamics (Amsalu, 2010; Marti et al., 1985; Zhou et al., 2008). This study therefore sought to investigate the influence of environmental factors on the seasonal variations of intermediate hosts' abundance in order to contribute knowledge towards the effective control of the disease.

*Biomphalaria pfeifferi* and *Bulinus truncatus* which are known principal intermediate hosts of *S. mansoni* and *S. haematobium* respectively in Ghana (McCullough, 1959; Yirenya-Tawiah et al., 2011) were the common species collected. An earlier study on concurrent infections of *S. mansoni* and *S. haematobium* in the Tomefa community also reported the two intermediate snail hosts of schistosomiasis occurring in sympatry in the Weija Lake (Abonie, 2013). The presence of *B. truncatus* in the Weija Lake was anticipated since it is a species of perennial man-made habitat (Greer et al., 1990).

In comparison, dead or empty shells of *B. pfeifferi* were more prevalent than those of *B. truncatus*. The observation of higher numbers of live *B. truncatus* compared to *B. pfeifferi*, agreed with an earlier study by Abonie (2013) in the same community. The difference however was not significant.

*B. truncatus* and *B. pfeifferi* are able to endure broad range of ecological conditions but seasonal variations in their relative abundance have been attributed to variations in abiotic and biotic factors within their habitats (Chingwena, Mukaratirwa, Chimbari, Kristensen, & Madsen, 2004; Hussein et al., 2011; McCullough, 1962; Shati, 2009; Webbe, 1967). In the present study, seasonal variations in the relative abundance of snails as reported by other works (Alebie et al., 2014; Chingwena et al., 2004; Ofoezie, 1999; Wanjala, Battan, & Luoba, 2013) differed between the two species as was observed in a study by Chingwena et al. (2004). Climatic factors such as temperature and rainfall emerge to have significant effect on snail abundance (Amsalu, 2010; Sturrock et al., 2001). In this study, rainfall appeared to affect relative abundance of snail hosts. However, the associations were not significant and therefore might not have influenced snail life cycles and probably accounted for their seasonal variations (Marti et al., 1985; Shati, 2009; Sturrock et al., 2001; Wanjala et al., 2013).

Appleton (1978), Guimarães et al. (2012) as well as Woolhouse and Chandiwana (1989) have reported that heavy rainfall which results in the flooding of the snail habitat negatively influence population density of snail hosts. This perhaps explain the low numbers of live *B. pfeifferi* recorded in the wet season (June and July) which could be attributed to the flushing out of snails due to flooding as a result of the high amount of rainfall recorded in June (Guimarães et al., 2012).

The abundance of live *B. truncatus* was observed to be increasing throughout the wet season while that of live *B. pfeifferi* increased only after the mid-wet season with abundance of both snail species peaking at the end of the wet season where rainfall was relatively minimal. This suggests that the minimal rainfall created a stable and favourable environment for freshwater snails to lodge onto surfaces and not to be washed away by water currents (WHO, 1965). Increase in the rate of development of snails during the period of minimal rainfall is recorded to be an adaptive strategy employed to ensure their survival (Juberg et al., 1987; Mazigo et al., 2012; Paraense, 1972).

Among the physico-chemical variables measured in this study, water temperature appeared to be the key determinant of snail abundance. The positive association between snail abundance and water temperature observed in our study is in agreement with observations that snail distributions are affected by temperatures (Stensgaard et al., 2006).

Water temperature was observed to be positively correlated with abundance of *B. pfeifferi* and live *B. truncatus* which is in agreement with other studies (Chingwena et al., 2004; Kazibwe et al., 2006; Wanjala et al., 2013; Opisa et al., 2011). This is indicative of the fact that increase in water temperature to tolerable levels possibly play important roles in the habitat of snail hosts by either ensuring food and aquatic weeds availability (Abdel Malek, 1958; Lydig, 2009) and/or enriching the microhabitat of juvenile snails to ensure their faster growth and development (Wanjala et al., 2013). Also, water temperature positively and significantly correlating with dead *B. pfeifferi* suggests that mortality of *B. pfeifferi* increase with increase in temperature. Woolhouse did not establish a distinct relationship between mortality rate of *B. pfeifferi* and temperature, probably because temperature recorded in his study was within the range of 18-25°C (Woolhouse, 1992).

The number of dead *B. truncatus* on the other hand was negatively correlated with water temperature. This probably implies that *B. truncatus* demonstrate a great level of tolerance to temperature variations in their habitats (Marti et al., 1985; WHO, 1957). Thus, water temperature can be described as a key determinant of the abundance of *B. pfeifferi* as reported by Opisa et al. (2011).

All natural water bodies are described to have some amount of turbidity that could be due to high planktonic density, sediments from soil erosion or flooding (Abdel Malek, 1958; Akande, & Odetola, 2013; Asante et al., 2005). The abundance of live *B. truncatus* and *B. pfeifferi* were all negatively correlated with turbidity which is supported by findings from Akande and Odetola (2013) suggesting that increased levels of turbidity might have a negative influence on the oviposition, development and hatching of the eggs of snail species and therefore the decrease in snail abundance (Appleton, 1978; Wanjala et al., 2013).

Several research works have identified pH values within 5.0-9.3 to be optimum for snail survival (Alves, 1958; Wanjala et al., 2013; WHO, 1957). Hence pH values recorded in this study were within the tolerance limits of snail species. The non-significant relationships observed reflect the fact that pH had little influence on snail abundance and may not be a key determinant of snail abundance as reported (Abdel, 1958; Ofoezie, 1999; Lydig, 2009).

Salinity of aquatic habitats influence the abundance and survival of intermediate snail hosts (Akande, & Odetola, 2013) as pulmonates per se are described to be less tolerant of salinity (Paradise, 2009). Thus, the observed constant salinity measurements indicate favourable condition for snail abundance and survival.

The present study also recorded relatively minimal conductivity values which were within optimum conductivity range suggested for *B. pfeifferi* (Brown, 1980) but lower than values reported for both snails (Lydig, 2009). The negative relationship found between conductivity and abundance of *B. truncatus* (live and dead) and live *B. pfeifferi* was consistent with earlier findings (Salawu, & Odaibo, 2012). Increase in conductivity values probably results in diminution of dissolved oxygen which negatively influences snail abundance (Salawu, & Odaibo, 2012). The number of dead *B. pfeifferi* positively correlating with conductivity also agrees with an earlier study (Ofoezie, 1999). However, the non-significant relationship observed between snail abundance and conductivity suggests that conductivity is not a limiting factor to the abundance of *B. pfeifferi* and *B. truncatus* (Lydig, 2009).

It has been reported that total dissolved solids (TDS) alter water clarity and reduce the passage of light resulting in the rapid heating up of water bodies and increasing their heat retention ability (Environmental Protection Agency, EPA, 2012). High TDS may result in oxygen depletion, a situation that leads to asphyxiation in aquatic habitat and reduction in snail abundance (Salawu, &

Odaibo, 2012). The present study revealed abundance of live *B. truncatus* and *B. pfeifferi* to be significantly correlated with TDS. Even though no significant associations were observed between TDS and dead *B. pfeifferi* and *B. truncatus*, this parameter can be described as an important limiting factor to snail abundance.

Aquatic plants found in the habitats of intermediate snail hosts have been reported to influence snail occurrence and population densities (Lydig, 2009; Odei, 1973; Sturrock et al., 2001; Webbe, 1967). Observation of the five aquatic plants namely *Ceratophyllum* spp., *Nymphae lotus*, *Neptunia oleracea*, *Typha* spp. and *Polygonum senegalense* showed snail species attached to various parts of the plants such as the underside of the broad leaves of *N. lotus*, probably to escape the direct effect of sunlight, feed, oviposit or get access to oxygen (Alebie et al., 2014; Hussein et al., 2014; Lydig, 2009). The stems of *Ceratophyllum* spp., *N. oleracea*, *Typha* spp. and *P. senegalense* also served as important sites for snail species to lay eggs. *Ceratophyllum* spp. was identified as an indicator plant for *B. truncatus* which support earlier reports (Larsson, 1994; Senker et al., 1982). Some snails found attached to materials other than aquatic plants also support earlier reports that occurrence of snail species is not entirely restricted to areas with aquatic vegetation (Barbosa, & Olivier, 1958; IAMAT, 2012; Lydig, 2009). Snails attaching to fishing nets facilitate the introduction of infected snails to non-endemic areas resulting in the continuous spread of the disease through fishing activities.

### Conclusion

Intermediate host snails sampled were identified as *B. pfeifferi* and *B. truncatus*. Their relative abundance varied seasonally with increased rate of development observed in the wet season when amount of rainfall was relatively minimal. Total dissolved solids (TDS) and turbidity significantly influenced the abundance of live snail species while only temperature influenced the number of dead *B. pfeifferi*. Rainfall, conductivity, salinity and pH on the other hand did not have significant influence on abundance of snail species. Therefore, TDS, turbidity and temperature can be identified as important limiting environmental factors to intermediate snail hosts abundance. Aquatic plant species present were also identified to influence snail abundance by providing shelter, food and sites for oviposition. The study has provided insight on the usefulness of understanding environmental factors and their influence on snail hosts abundance to inform the best time for effective control of the intermediate host using the appropriate integrated methods.

### Acknowledgement

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### Conflicts of Interest

The authors declare the work has no conflicts of interest.

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RESEARCH ARTICLE



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## Conversation in Theoretical and Methodical Training System for Future Teachers: A Case of the Ukrainian Language

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### Abstract

This article analyzes the different scientists' perspective on the classification of teaching methods in pedagogy and linguodidactic. Conversation is one of the active methods of teaching that forms a coherent system in combination with other methods. It also has a wide range of usage (in the process of acquiring new knowledge, repetition and generalization of the studied material and etc.). Types of conversations as examined in this paper include: heuristic, reproductive, generalized, control and corrective, analytic and synthetic. This paper also presents the purpose, structure and methods of implementation. It is worth mentioning that the methods of discussion and debate are also similar to the methods of conversation. The effectiveness of these methods, in the process of theoretical and methodical training of future teachers of the Ukrainian language has been proven in the system of integrative study in normative disciplines of linguistic and psycho-pedagogical cycles.

**Keywords:** Conversation, Debate, Discussion, Future Teachers, Teaching Methods, Theoretical and Methodical Training, Ukrainian Language.

### Introduction

Theoretical and methodical training for future teachers in the Ukrainian language is based on the choice of effective teaching methods, which also depends on a lot of criteria. These teaching methods have been described as the way of interaction between a teacher and a student focusing on the achievement of learning goals in pedagogy (Babanskyi, 1989; Kharlamov, 1990) and linguodidactic (Pentyliuk et al., 2004).

Today, there is no generally accepted classification of this methodological phenomenon. For example, Babanskyi (1989) distinguishes the groups of methods according to: the source of knowledge [verbal, visual and practical methods]; the appropriate stage of training [each of the stage solves the original problem]; the method of management of training activities [teacher's explanations and different ways of students' individual work organization]; the logic of educational process [inductive and deductive, analytic and synthetic methods]; the didactic purposes [students'

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activity organization, methods of activity stimulation: competitions, contests, games, incentives, etc.] (Babanskyi, 1989).

Kharlamov (1990) rather defines such five groups of teaching methods as: method of oral knowledge presentation [narration, explanation, lecture, conversation; illustrations and demonstrations during the oral presentation of knowledge]; methods of fixation of the studied material [interview, work with a textbook]; methods of independent work for understanding and assimilation of new material [working with textbook, laboratory work]; methods of educational work for the development of skills of practical knowledge application [exercises, laboratory lessons]; the methods of verification and assessment of knowledge and skills (p. 193). Other scientists categorize the classification of teaching methods according to the level of pupils' cognitive activity. Such classification includes; explanatory-illustrative method [supply of ready information through verbal words and visual aids]; reproductive method [reproduction and repetition]; problem solving method [creating and solving problematic situations]; heuristic method [independent decision of educational problems]; research method [stimulation to creative activity] (Lerner, & Skatkin, 1982). Underlying the importance and effectiveness of existing classifications in pedagogy, Yu. Babanskyi expresses an opinion on the substantiation of these methods as "*versatile integrated approach to activity*". He says that "*the choice of methods will depend on various factors*" (Babanskyi, 1989, p. 386). Essentially, the classification of methods according to interaction among students and teachers proposed by Beliaiev and colleagues [i.e. oral presentation of learning material, conversation, language observation, textbooks usage and exercises] is much accepted presently in linguodidactics (Pentyliuk et al., 2004).

A brief analysis of these classifications show a deep reflection of scientists' research. Building on the opinion of T. Donchenko about the process of selecting teaching methods, a diverse approach to the learning process requires a careful selection and consideration of teaching methods. This will certainly ensure the successful achievement of all learning objectives and will also cover all acts of the educational process. The definition of the meaningful learning goal is that "*the problem of methods in relation to individual techniques is not so much theoretical as practical*" (Donchenko, 2005, p. 4).

Taking into account the specificity of theoretical and methodological preparation of future teachers, this paper attempts to analyze conversation, an active learning method. Conversation as a method provides the effectiveness needed for training in the disciplines of linguistic and psychopedagogical cycles. It is also seen as the normative component of the curriculum. The features of conversation as a learning method were explored in the writings of teachers such as Yu. Babanskyi, N. Volkova and other specialists in linguodidactics like T. Donchenko, S. Karaman, S. Lukach, and M. Pentyliuk.

The purpose of this article is to describe the methods and types of conversation, their application and to exemplify using author's inventions.

### **Definition of the Essence of the Concept – “Conversation”**

Conversation is a dialogical method, which essentially consists of answers to the teacher's questions in order to reproduce previously acquired knowledge (Pentyliuk et al., 2004). According to Volkova (2007), conversation relates to active learning methods, it is implemented using four types of didactic dialogues: "*teacher – student*", "*student – student*", "*student – textbook*" and "*student – computer*" (p. 323).

Over the years, the types of conversation include; *the heuristic conversation* [develops the creative activity of the student; directs his/her activity to search for the new; creates preconditions for the implementation of problem-based learning; promotes the organization of independent work], *the reproductive conversation* [aims at the reproduction of the acquired knowledge and memorization through reproduction and repetition]; *the generalized conversation* [involves preventing the forgetting of the learned material, forming the ability to analyze the studied materials, drawing conclusions from the facts; forming practical skills]; *the control-correction conversation* [aims at verification, correction and control of knowledge, which requires the establishment of students' logic thinking, understanding the content of the studied material and the level of its awareness]; *the analytical-synthetic conversation* [it is used for the purpose of establishing causal relationships, comprehension of knowledge based on their own observations and life experience] (Lukach, 1990).

The method of conversation has a wide range of uses. It can be used when, learning new material, repeating and generalizing the acquired knowledge. It can also be used in controlling the level of developed skills and abilities. These methods can be implemented both independently and in combination with other methods, particularly with the method of exercises, observing the linguistic material, etc.

### **A Wide Range of Usage of the Method of Conversation**

The analysis of linguistic-didactic literature and personal experiences in higher educational establishment gives the reason to assert that the choice of the method of conversation is influenced by several factors. These include; the form of the learning session, its purpose and objectives, and the level of preparedness of the group. In consequence, the introduction of the heuristic conversation can be offered for a lecture where new material will be presented. Selected cases below are based on approved document by the Ministry of Education and Science of Ukraine, which defines the purpose and objectives of the course, the scope and system of knowledge, the range of the Ukrainian language skills, which must necessarily be achieved by students in the learning process (Pentyliuk et al., 2004).

**Case 1:** At our lecture titled; “Methodology of the Ukrainian language as a science and a discipline” we offer such questions as:

1. *What in your opinion is the most important theoretical or practical preparation of the future teacher of the Ukrainian language? Explain the idea.*
2. *What is the methodical preparation of the future teacher of the Ukrainian language?*
3. *Based on the analysis of the acquired knowledge of linguistic, psychological and pedagogical disciplines, prove why the study of the methodology begin at the third year?*
4. *What do you think are the main problems of the course: the “Methodology of the Ukrainian language”?*
5. *What is the peculiarity of the course of “Methodology of the Ukrainian language”?*

Such a conversation will help students to actualize the background knowledge of normative linguistic, psychological and pedagogical lessons attained in previous courses. It will also help to develop research skills and introduce search elements to learn new information. Nonetheless, it is advisable to introduce the reproductive conversation into lectures and practical classes.

**Case 2:** At our lecture titled; “Methods and techniques of learning the Ukrainian language” we propose to start with the following questions:

1. *Give the definition of “teaching method” in pedagogy.*
2. *Describe the existing classifications of methods in pedagogy.*
3. *What is a technique in pedagogy?*
4. *Is there a clear line between the method and the technique? Give an example.*

Through the reproductive conversation, it is possible to identify the students’ knowledge of pedagogy (didactics) and psychology and some of linguistic disciplines in order to create the preconditions for mastering “Methodology of the Ukrainian language”, which will help to determine the problem of choosing forms of work, methods and techniques.

**Case 3:** Generalized conversation provides the basis for seminars and practical classes in high school. It is also vital in the preparation for control module works, and in the defense of individual tasks as this type of conversation provides control over the developed skills and abilities. On the topic of “Psychological and didactic principles of the Ukrainian language learning”, we offer such a system of questions for holding general discussion such as:

1. *Define the connection among the methods of the Ukrainian language, pedagogy and psychology.*
2. *What is the speech activity? What are its components? What is the linguistic and communicative competence of a specialist?*
3. *What are the patterns of learning?*
4. *Compare the classification of the learning principles. What are their different quantities? Explain the idea.*

5. Find and compare existing concepts in the methodological and pedagogical literature of the definition of “method”. Which of them can give qualitative characterization of the method as a system of purposeful educational activity?

6. What functions do these teaching methods fulfill? The answer should be illustrated with examples.

7. What innovative methods are introduced into the system of the Ukrainian language teacher’s work? Give examples.

Thus, the selected questions for the general conversation address the fundamental and key issues of the topic, organize the training material, focus students’ attention and provoke them to generalizations and conclusions. Each subsequent question complements the previous one by building a harmonious system of learning materials and creating conditions for the control of the obtained knowledge in the form of a frontal and individual survey.

The peculiarity of the control-correction conversation gives the right to state that, it can be used in practical classes and in the course of checking the quality of students’ independent work.

**Case 4:** The analytical-synthetic conversation affords a logical division of the educational material into separate thematically completed parts. Disclosure issues, as a rule, are usually completed by summarizing.

1. Find out the features of the content and structure of the current Ukrainian language programs.

2. According to which content lines is the program of the Ukrainian language built? Give them characteristics.

3. What are the basic principles for the construction of the Ukrainian language active program?

– Demonstrate the principle of continuity.

– How the principles of systematic and accessible are realized in the program?

– What are the linear and concentric principles of constructing the Ukrainian language program, what are the deviations from these principles?

It is noted that the implementation of the analytical-synthetic conversation involves fragmentation of teaching material into small parts, highlighting the main one in each of the parts.

### **Similar Methods to the Method of Conversation**

The discussion and debate methods are close to the conversation. According to Pometun and Pyrozhenko (2004), a discussion is “a wide public debate of a certain controversial issue, which promotes the development of critical thinking, makes it possible to state their own thoughts, convictions, views on certain problems, to select and convey persuasive arguments, to defend their own point of view and take the side of the interlocutors” (p. 64). Thus, the subject of discussion for future Ukrainian language teachers may be to substantiate scientific linguistic and pedagogical problems, to solve the disputed issues, to form certain beliefs with the use of reliable facts and arguments, to teach listening and to weigh the assessments and opinions of the participants in a discussion.

N. Volkova introduces the following types of discussions into the practice of higher education:

1. “a round table” is a conversation, in which there is an exchange of views between its participants;

2. an “expert group meeting” (“panel discussion”), where the chairman and members of the group analyze a certain problem, proposing their own way (position) for solving it;

3. a “forum” is deliberation of the group’s thoughts with the audience;

4. a “symposium” is a presentation of own position in the process of discussing a certain topic with further answers to the questions of the audience;

5. a “debate” is a discussion built on pre-planned performances of rival members (Volkova, 2007, p. 351).

### **Conclusion**

The study suggests that the choice of method depends on the form of learning process organization, its goal and objectives. A special place in the hierarchy of methods is given to a conversation whose main purpose is to conduct a dialogue with a student, to check the level of mastering of the educational material and the ability to express an opinion. Future topics for dispute and discussion should be used in the system of integrative study of normative disciplines in the linguistic and psycho-pedagogical cycles. Such are targeted at enriching students with adequate educational information, vocabulary and terminology resources, and the skills to prove and defend their own points of view.

### **Conflicts of Interest**

The author declares the work has no conflicts of interest.

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RESEARCH ARTICLE



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## An Outline of Labour in Plato's Thought

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### **Abstract**

The labour system of every society is crucial to its effective running. This is implied in Plato's theory of social justice, even though he does not engage in a formal discussion of labour in any of his works. Yet, attempts by scholars to explore the characteristics of labour in Plato have been limited to his economic ideas, with a concentration on the division of labour and specialization. In this paper, I argue that Plato's thoughts on labour go beyond just the principle of division of labour and specialization to employ philosophical, ethical, and psychological ideas in putting forward a labour system that keeps the *polis* functioning effectively, and that the socio-economic and political roles and implications of labour in Plato's thought can only be understood by considering his holistic ideas. I conclude that the absence of a formal discussion of labour is because the principles and ideas Plato expounds in his works are sufficient to put the ills and evils that could result from labour in check. Nevertheless, the *Republic* and *Laws* present the best outlines of what may constitute labour in Plato's thought, and so I concentrate, but do not limit myself, to both works.

**Keywords:** Class, Labour, Laws, Plato, Platonic Communism, Political Organization of Society, Republic, Work.

### **Introduction**

Implied in Plato's use of the principle of division of labour and specialization (Plato did not introduce these terms) in his *Republic* and *Laws* is the fact that the labour system of every society is crucial to its effective running. But Plato does not engage in any formal discussion of labour in these two dialogues, nor in any of his works. Because of this, scholars may not have seen the need to research what will constitute Plato's thought on labour. This observation is evident in the discussions on the abolishment of the private family and property (Barker, 2012; Okin, 2013, Okin, 1977), the role and place of women (Annas, 1976; Blair, 2012; Pomeroy, 1974; Santas, 2005; Vlastos, 1997), and the status and treatment of slaves (Calvert, 1975; Vlastos, 1941) in Plato's political thought. But there is evidence to show that the study of Plato's *poleis* (sing. *polis*), a

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“settled community of human beings cooperating ... to fulfil their needs and to promote their common welfare” (Melling, 1987, p. 5), can never be complete without reference to labour. In the *Republic*, for instance, Plato’s Socrates (hereinafter, Socrates) attempts a definition of justice by considering the state (II, 368d-369a).<sup>1</sup> This state, according to Socrates, arises because of specialization and division of labour:

[A] city comes to be because none of us is self-sufficient, but we all need many things. ... And because people need many things, and because one person calls on a second out of one need and on a third out of a different need, many people gather in a single place to live together as partners and helpers. And such a settlement is called a city. (*Rep.* II, 369b6-c3; cf. Aristotle, *Politics* I, 2.1252b28-30)<sup>2</sup>

Labour is therefore a central aspect of Plato’s *poleis*. Unfortunately, because specialization and division of labour are so crucial to the formation of Plato’s *poleis*, they have been treated as the major concepts and on purely economic terms with regards to labour’s role in Plato’s political organization (see Alvey, 2011a; Alvey, 2011b; Amemiya, 2007; Evers, 1980). This places limits on the extent of labour’s role in Plato’s political organization, for there are bordering concepts which are equally fundamental to the sustenance of Plato’s *poleis*: even though specialization and division of labour may result in the formation of a State, they cannot sustain it without the interplay of other ideas contained in these related concepts (see Hodges, 1962). For instance, what divisions of labour will be assigned to different groups of people? What regulations will govern these divisions? What kinds of training will produce the desired goals of the various class divisions? What socio-economic and political implications will labour present to the classes in Plato’s political organization?

In this paper, I argue that despite the absence of a formal discussion of labour, Plato’s *poleis* are sustained by an efficient labour system, which departs from a purely economic motive to engage philosophical, ethical and psychological ideas in producing virtue in the citizens of the respective societies in the *Republic* and *Laws*, and that these ideas are what influence Plato’s thoughts on labour. I examine this labour system by exploring the various aspects of Plato’s economic, ethical and psychological ideas in his two longest dialogues which also present us with substantial evidence, even though I refer to other works by Plato. Thus, my analysis extends beyond the concept of specialization and division of labour to other aspects of labour and non-economic principles, and gives us an opportunity to understand the socio-economic and political roles and implications of labour in Plato’s political thought. I conclude that the reason Plato does not formally discuss labour is because the ideas he proposes are enough to put the ills of labour in check, and that any attempt at studying labour in Plato’s thought should not focus on his economic ideas only.

At this stage, it is important to clarify my use of ‘labour’ and ‘work’ in this paper. Based on the near-synonymous use of ‘labour’ and ‘work’ in modern English language (for example, scholars have termed the division of work or tasks in the *Republic* as ‘division of labour’), I use ‘labour’ and ‘work’ interchangeably and to mean the same thing, unless otherwise indicated. This approach is further informed by Plato’s use of a common word, *ergon* (pl. *erga*, work, task, function) for both mental and manual occupations (*Rep.* II, 372a6-b2; 374b5-7; IV, 421b5-c2), but different words, *ergon* and *ponos*, for the activities involved in doing mental and manual work respectively. While *ergon* generally refers to occupation or task and to activities performed by mental effort, *ponos* refers specifically to those activities that are done by bodily exertion (*Rep.* II, 369e2-5, 371d9-e3). This means that a manual worker, say a ship builder, has an occupation (*ergon*) but labours (*ponei*) to produce a ship. Thus, the difference lies in the nature of the activities (mental or manual) involved in executing a task.

### **The Origins of Labour and the Principle of the Division of Labour**

In almost all creation myths of the greatest works, there is a part of the stories that account for the curse of labour and cause of the ills of society. For instance, in Ovid’s *Metamorphoses* the creation story presents an account of a Golden Age in which people had everything flourishing — it was all leisure for them. There was no need to till the ground: “the earth itself, without compulsion, untouched by the hoe, unfurrowed by any share, produced all things spontaneously....” (*Metamorphoses* 1.102-3).<sup>3</sup> People’s only task was to gather what they required. Then, the created

world began degenerating when sin entered it, and people began to labour (*Metamorphoses* 1.103-25).

Hesiod also narrates this myth in his *Works and Days* (109-201), to which Plato refers and states that there were no political institutions in society during the Golden Age (cf. *Laws* III, 677-678).<sup>4</sup> Instead, a god reared and cared for human beings, just as humans rear and care for other lower animals (*Statesman* 271e). There was no lack of basic needs: there was abundance of food since the earth brought forth its own produce and there was no need for clothes as the “blend of seasons” provided a favourable climatic condition:

*For the most part they [people] would feed outdoors, naked and without bedding; for the blend of seasons was without painful extremes, and they had soft beds from abundant grass that sprang from the earth. (Statesman 272a4-5)*

Succeeding this age was the Age of Zeus when human beings were deprived of the orderliness of the cosmos and the care of the gods. Humans became vulnerable: majority of the animals turned wild, and being weaker, humans fell prey to them (*Statesman* 274b); resources and expertise were lacking, and the earth ceased to yield fruit by itself (*Statesman* 274c; cf. *Laws* III, 677b, 678a2). Thus, care from the gods having ceased, human beings had to take care of themselves with the resources available to them (*Statesman* 274b). This began the need for people to labour and fend for themselves, making labour a necessary tool for their survival. But could they provide all they needed without relying on others?

In order to survive the crisis succeeding the Golden Age, human beings now had to depend on others to provide for their needs since they were no more self-sufficient (*Rep.* II, 369b7; cf. *Laws* III, 679e6). The wise course of action was to come together and provide individually those things they needed and share or exchange between themselves. Thus, no human chose to live alone; rather, they joined others who could provide the things they could not provide for themselves. The labour of each person and their various specializations resulted in the formation of a city (*Rep.* II, 369b9-c1). Thus, labour’s role here is very crucial; without the labour of the various persons and their specializations there would not be the need for them to come together to form societies.

Plato advocates for efficiency in labour: each person must “contribute his [or her] own work for the common use of all” so that instead of a farmer spending, say, twelve hours in producing food, building a house, producing textile, and making footwear, he or she would concentrate on using the twelve hours in only producing food for all (*Rep.* II, 369e; cf. IV, 433a). This is necessary because (1) naturally, we are different people and each person is best suited to particular tasks (*Rep.* II, 370a; *Timaeus* 17d1-2; cf. *Charmides* 171e2-6), and (2) an expert in a particular field does a better job than a jack of all trades (*Rep.* II, 370b). An economic effect of this is that more plentiful and better-quality goods and services are produced (*Rep.* II, 370c). Engaging in two or more kinds of work decreases any chance of being best in any of the trades, but specialization creates the process for one to be best at his or her trade: “...each individual would do a fine job of one occupation, not of many, and ... if he [or she] ... dabbled in many things, he’d surely fail to achieve distinction in any of them” (*Rep.* III, 394e1-4; cf. *Rep.* II, 370b, 374a6-7). In the *Laws*, for example, everyone must follow one vocation (VIII, 847a2-4). Like the Guardian in the *Republic*, who “requires most freedom from other things and the greatest skill and devotion” (*Rep.* II, 374e1; cf. III, 395b7-2, *Timaeus* 18b5-8), the citizen’s sole vocation is to cultivate virtue (*Laws* VIII, 847a5-6). The same rule applies to all other workers:

*Following two trades or two callings efficiently—or even following one and supervising a worker in another—is almost always too difficult for human nature. So in our state this must be a cardinal rule: no metal worker must turn to carpentry and no carpenter must supervise workers in metal instead of practicing his [or her] own craft. (Laws VIII, 846d5-e5)*

A critique of Plato’s division of labour and specialization is that it will create boredom and reduce the efficiency that it seeks to achieve since citizens will commit to only one task and the same routine of production. Nevertheless, citizens will have social lives where their boredom will be taken care of. They shall have sex and feast with their children and engage in religious activities (*Rep.* II, 372b5-6). Moreover, due to “geographical differentiation in [nature]” (Evers, 1980, p. 46), labour will result in domestic and international trade (*Rep.* II, 371a-d). It will also result in the

establishment of a monetary economy where the exchange of goods and services shall no more be by barter but by currency (*Rep. II*, 371b).

Even though it is an economic need that brings the labours of people together, the process is not without social consequences. A social effect of the division of labour and specialization is that it leads the individual to a second stage of the socialization process, that is, outside the bonds of family. According to Rothbard (1971), if human beings had been self-sufficient, there would not be any social life since they will have no need to be dependent on each other. Thus, labour is socially necessary for the formation and functioning of any city. It improves the social life of human beings and helps them understand the different personalities of other humans through interaction with them. Nevertheless, the increase in wealth of individuals and increased population resulting from the socialization process and the need to fulfil sexual needs will lead to scarcity of resources (*Rep. II*, 373d). This will result in litigation and the seizure of foreign lands through war (*Rep. II*, 373d-e). There will thus be the need for a class that will wage war on behalf of the city and protect it (*Rep. II*, 374a; *Timaeus* 17d2-4, 24b1-3). This class shall be developed into the ruling class while retaining their military function; the remaining citizens shall be engaged in manufacture and production of food (*Critias* 110c; *Rep. II*, 372a). Division of labour and specialization, therefore, influence the development of classes.

It is based on the laws of the division of labour and the various empirical assumptions Plato makes concerning the “social tasks”, talents, abilities and education of individuals that Plato defines his principle of social justice (Calvert, 1975; Santas, 2005). Thus, as Santas (2005) observes, Plato’s theory of social justice requires two principles: the principle of division of labour, which is independent of the second principle, that is division of labour by talent. The difference between both principles is that in the first, “we can have division of labour without regard [to] talent, though of course not division of labour by talent without division of labour” (Santas, 2005, p. 29). In other words, the goal of division of labour is to maximize goods and services, but division of labour by talent ensures an even distribution of work based on people’s aptitude— “it requires distributions of social labours on the basis of educated talent” (Santas, 2005, p. 29).

### **The Nature of Work in the Republic and Laws**

In both the *Republic* and *Laws*, work functions as a means to an end. Each person works with the aim of achieving goodness for the product and for himself and others. In the *Laws*, for example, the aim of the legislator is to produce the ‘best’ citizens who will serve as the fighting force of the state (*Laws VIII*, 830a-831a). In addition, he is to enact laws that would help distribute wealth proportionately so that there would not be either extremes of wealth (which corrupts the soul by luxury) or poverty (which drives men “by distress into losing all sense of shame”) (*Laws XI*, 919b6-d1). In the *Republic*, rulers choose to govern because they do not want to get punished from refusing to rule—the punishment being that they will be “ruled by someone worse than [themselves]” (*Rep. I*, 347c3). So, unwillingly they accept to rule and

take other people’s troubles in hand and straighten them out, but [they ask] for wages; for anyone who intends to practice his [or her] craft well never does or orders what is best for himself [or herself]—at least not when he [or she] orders as his [or her] craft prescribes—but what is the best for his [or her] subject. (*Rep. I*, 346e7-347a3)

Another goal of work is the satisfaction of the needs of the community through an even distribution of goods and services (*Laws XI*, 918b6-919c2). In doing this, the worker produces tools and crafts in return for pay (*Laws XI*, 920e). But the worker’s first goal is to the benefit of the subject of his or her craft (*Rep. I*, 341c4-342e, 346a5), and in achieving this he or she receives a reward in the form of wages through the operation of another craft—wage-earning (*Rep. I*, 346c). Thus, every kind of work does not benefit itself but the thing it is set over (*Rep. I*, 346d-e). Any work that does not produce the function of which it is set over, therefore, is useless (*Rep. I*, 333a1-e2).

The work process involves a relationship among art, skill, tool and matter. For any work to be accomplished, it will need a skilled person in that craft, and a tool that he will use on the matter to bring about the desired result (*Cratylus* 388a-c, 389c). To create a statue, for instance, a man needs several tools and the skill of sculpture to work on and mould the matter (wood, clay, metal or stone) into a finished product. The worker of the product is known as the cause of production

because he makes the product itself, while those workers who provide the tools or resources, without which a product would never be accomplished, are known as contributory causes (*Statesman* 281e, 281c2-5, 287c7-8). For instance, a weaver is the cause of the production of wool-clothing, while the carpenter who produces the shutter for weaving is a contributory cause of production. The shutter is the carpenter's product, in which case he or she is the cause of its production, but to the weaver the shutter is his or her tool (*Cratylus* 388c).

The accomplishment of work may involve several processes of production. These processes may also involve several kinds of workers, arts, skills, specializations and divisions of labour. The art of building, for example, would involve several divisions of labour and specialized arts. It would need the supervision of the master-builder, who will direct the building of a structure by ensuring that the expertise of the draughtsman and architect are followed. Other specializations that would be needed are carpentry and joinery, masonry, metal-work, and painting.

The work process also involves a relationship with knowledge, both theoretical and practical (*Statesman* 258d4-e5; cf. *Philebus* 55d1-2). The theoretical sort of knowledge (*tēs gnōstikēs epistēmēs*), which further divides into directive and calculative sorts of knowledge (*Statesman* 260b; cf. 258d8-e1), refers to the understanding of the mind, while the manual or practical sort (*cheiourgīān*, working by hand) denotes the use of the hand or body (*Statesman* 259c8-9). Thus, in building houses, master-builders provide understanding (theoretical knowledge or intellectual labour) rather than manual labour (*Statesman* 259e14-15): "they don't act as workers themselves, but manage workers" (*Statesman* 259e11-12). Moreover, the process of work involves an overlap of knowledge and skill. In the manufacture of a rudder, for instance, a carpenter would do a good job only by the supervision of a ship-captain, who has expert knowledge on the appropriate markings and measurements needed for his or her ship (*Cratylus* 390d1-2). These cases show that there cannot be a divorce of brain from hand; intelligence of the mind and the skill of the hand are needed to accomplish work that involves the application of both theoretical and practical knowledge.

In ancient Greek society, manual labour was seen as a form of slavery since it restricted humans from doing what they pleased, and subjected them to harsh conditions, causing them not to realize their full potentials. Except for citizens of the poor class who engaged in manual labour, Athenian citizens were mostly concerned about the politics of the city-state. Thus, the Athenian economy was mostly supported by slaves and foreigners who had come into the city to trade. Some of the slaves also engaged in trade and commerce, while others worked as farmers and domestic servants and in the silver mines (Amemiya, 2007; Cartledge, 1998). They had their labour "simply extracted from them" (Calvert, 1987, p. 368). Morrow (1939) summarises the characteristics of the slave status from Plato's *Laws* as follows:

[a] The slave is a possession, [b] but also a person, subject to the arbitrary will of another person, his master, and [c] subject also, independently of his master, to law, both positive law (the legislation of the state) and to religious and moral law (the requirements of "holiness"). [d] He is protected against certain forms of abuse by religious law, and [e] in his public capacity at least, by the law of the state. But [f] he possesses no rights of action, except in his public capacity, and a *fortiori* no political rights. (p. 188)

In addition to the above, the slave is believed to be incapable of giving or following rational account (*Laws* XII, 966b; Vlastos, 1941), suggesting a degradation to the status of animals (see Aristotle, *Politics* I, 5.1254b20-3; Amemiya, 2007). Moreover, Aristotle notes the difference nature places on slaves and freemen: slaves are made for "servile labour", while the freeman is made for "political life in the arts both of war and peace" (*Politics* I, 5.1254b25-30). In Plato's *Laws*, a distinction is made between the free doctor who attends to freemen and the slave-doctor who attends to slaves (IV, 720c-d). Here, the doctor-slave does not give "any [rational] account (*logos*) of the particular illness of the individual slave ...; he simply prescribes what he thinks best in the light of experience (*doxa*) ... Then he dashes off on his way to the next slave-patient ..." (Vlastos, 1941, p. 289; cf. *Laws* IV, 720c). This contrasts the process of attendance by the free doctor upon free men:

*his method is to construct an empirical case-history by consulting the invalid and his friends; in this way he himself learns something from the sick and at the same time he gives the individual patient all the instruction he can.* (*Laws* IV, 720d)

Thus, the slave, like the lower animals, is incapable of apprehending reason (*logou*), hence incapable of ruling: “*the only one fit to rule is he who possesses logos*” (Vlastos, 1941, p. 290; cf. *Laws* XII, 968a).”

### The Different Kinds of Work and Workers

Work, and those who do them, can be differentiated in several ways. According to the human talent or ability required, work and workers can be divided into skilled and unskilled (*Rep.* II, 374e1-3). A skilled worker is one who has been trained to work at a particular craft (for example, carpentry, painting, speech-writing, sophistry, weaving, teaching, medicine), while an unskilled labourer is one whose work does not require any training. In the *Republic*, some citizens are not fit to do any work except for providing retailing services (II, 371c4-d3), while others such as porters merely “sell the use of their strength” (II, 347d9-e3). Again, depending on the ability required there could be further divisions in skilled work since some jobs demand more skill than others. For example, based on their respective abilities, there are three groups of skilled workers in the *Republic*: money-making, auxiliary, and ruling classes. Everyone is given initial training in music and poetry and physical education, and is tested and assigned a class based on his or her performance (*Rep.* III, 413c-414a; VII, 537a-540c; cf. *Laws* V, 735a).

Skilled labour further divides into manual and mental work. Manual labour consists of all jobs carried out with the skill of the hand and strength of the body while mental labour consists of work done with the intelligence of the mind (*Statesman* 259c8-9). Manual labour depends primarily on practical knowledge as against mental labour’s dependence on theoretical knowledge (*Statesman* 258d4-e5, 259e14-15). The training of citizens involves both manual (physical training) and mental (music and poetry) labour (see *Rep.* II, 376e2-4; *Timaeus* 18a10-12), but their actual occupations fall either between manual or mental work. In the *Republic*, manual labour is carried out by the third class of citizens while the mental work, which is directive and calculative in nature, is done by the guardians. In the *Laws*, citizens engage in mental work through the cultivation of physical perfection and moral virtue (*Laws* VII, 807c-d; VIII, 828a-829e) and participation in politics (*Laws* VI, 751a-764c), but they are forbidden from engaging in craftsmanship so that they can give full attention to their political and civic duties (*Laws* VIII, 846d). Craftsmanship and every other manual work are carried out by foreigners, though slaves are forbidden from engaging in craftsmanship (*Laws* VIII, 846d-847a; VII, 806d8-10). Nevertheless, some foreigners also engage in mental jobs such as teaching (*Laws* VII, 804d1-3). In the *Laws*, the exclusiveness of craftsmanship and political activity to foreigners and citizens respectively shows that work can be differentiated according to the social status of the worker.

Work can be useful or useless depending on its ability to accomplish the task over which it is set (*Rep.* I, 333a1-e2), that is, whether it is productive or unproductive. One sense of productive labour is when work produces a desired result or a good outcome, so that if the required resources needed for production to occur are lacking, work would be done poorly and hence be unproductive (*Rep.* IV, 421d12-e1, 422a1-2). Productive labour could also refer to manual labour (*Philebus* 55d1-2), where the outcome of work is physical rather than abstract, unlike the case of mental labour, which is directive and calculative in nature.

Work can also be distinguished by reference to the way it is done. When a master-builder directs the completion of a building project, his supervision is solitary in nature, but the workers (*dēmiourgos*, those who engage in manual work for pay) over which he has oversight work in groups (*Statesman* 260a; cf. 268a6-b7). Hence, labour can be distinguished either as solitary work or group work. Work may also be considered as disreputable based on moral deviation and on the status of the worker. In the *Republic* lawgivers are cautioned not to subject citizens to orientations that are slavish in nature (III, 395e3; VI, 486a-b). Elsewhere, the moral deviations of trading and its abuse has made people think of it as a “low and disreputable occupation” (*Laws* XI, 918c2-3).

Depending on the motivation for working, work can be distinguished between paid and unpaid (or voluntary) (cf. *Statesman* 299a-b2). Plato distinguishes between those who work for pay and those who work without pay. Those who sell their labour to make money are called wage-earners (*Rep.* II, 371d-e; *Laws* 920e-921c; see Calvert 1987, p. 368). This excludes slaves since they do not sell their labour but rather provide free labour for their masters and depend totally on them for sustenance (*ibid.*). Included in paid work are the guardians who are not wage-earners, yet receive wages for their work (*Rep.* I, 346e6-347a6; IV, 416e1-3; VIII, 543b4-c2). The officials and

citizens in the *Laws* fall under the category of unpaid work since they are forbidden from practising any craft other than the cultivation of moral virtue and physical perfection (VIII, 847a5-6; VII, 807c5-d2). Their performance of civic and political duties does not result in any payments for work done.

When labour is bought and sold, it is characterised as a commodity and the reward for this service is wages. But wages could also serve as the reward for good performance, and penalty for poor performance or dereliction of duty. Plato divides wages into two—tangible and intangible wages (*Rep.* I, 347a4-6). The tangible wages are the physical monies (wages in cash) and prizes (wages in kind) that are given in exchange for services and performances respectively. The craftsman receives payments for his services (*Statesman* 298a-b3; *Rep.* II, 371c-e3; V, 464b6-c1; VIII, 543b6-c2; *Timaeus* 18b1-5; *Laws* VIII, 847a2-4, b2, 848a; cf. *Laws* VII, 804d1; XI, 918b6), and citizens who perform creditably well in competitions for guardianship and other contests receive rewards and prizes (*Rep.* V, 460a10; *Laws* VIII, 829c1-2, 833c1-3).

In the sense of being intangible, wages come in the form of honours, privileges and even punishments or penalties. Citizens are crowned with wreaths and honoured in life, and after death, they receive the best tombs and memorials for their outstanding performances in contests (*Rep.* V, 468b2-5; III, 414a1-3; V, 468c8-469b2; *Laws* VII, 802a; VIII, 829c4-6). For qualifying into the guardian class, the rulers have sex with the best women, but those who are good in war and other things have sex with the women more often (*Rep.* III, 459d6-7, 460a10-b2; V, 468c3-6). Those who fail, however, are demoted to the third class of citizens (*Rep.* V, 468a4-6; cf. IV, 423c), or in the case of the *Laws*, reprimanded (VIII, 829c4-6, 847a5-b1). In the *Republic*, the rulers have their wages in the form of punishment (that is, to be governed by an inferior person) if they fail to rule (*Rep.* I, 347c4-5), and in the *Laws*, those who refuse to engage in political activity are fined (VI, 763e9-764a).

### Work Qualifications of the Classes

Qualifications for work generally divide into four: education and training, moral and family life, age and experience, property-class and social status. There are rules of qualification for the various classes. First, they must all be educated and trained to be perfect at their respective crafts:

*No other tool makes anyone who picks it up a craftsman or champion unless he has acquired the requisite knowledge and has had sufficient practice.* (*Rep.* II, 374d; cf. *Laws* VII, 818b8-d1)

*Then to the degree that the work of the guardians is most important, it requires most freedom from other things and the greatest skill and devotion.* (*Rep.* II, 375e1-2; cf. *Laws* VIII, 846d)

Thus, education and training are compulsory and they play a key role in all the forms of mental and skilled manual labour. And in the *Republic*, it is the aptitude of an individual towards his education and training that determines which class he or she fits in (cf. V, 468a-b). Those who can meet the criteria for this type of education enter the guardian class, while the rest enter the wage-earning class (*Rep.* V, 468a4-6; cf. IV, 423c). Nevertheless, provision is made for promotions and demotions such that a person could progress from the wage-earning class to the guardian class, vice versa (*Rep.* IV, 423c; V, 468a4-6). A similar provision is made in the *Laws* where a person moves up or down the property-class ladder depending on changes in economic status (V, 744c6-d2). In the *Laws* emphasis is also placed on the acquisition of skills through education and training. Citizens must undergo several years of education to be able to perform their political and civic duties perfectly (*Laws* VI, 788ff.), and foreigners who wish to stay in the state must, as a requisite, possess a skill (*Laws* VIII, 850a8-b1).

Qualification could also be met by age or experience. It is important to note that even though age can influence experience, it does not mean experience. In the *Laws*, except for competitions in solo dramatic performances whose judges shall not be less than thirty years old, all other judges for contests in athletics and choral performances shall not be less than forty years old (VI, 764d-765a1-3). Nevertheless, those in charge of the choruses and the solo performances must, in addition, possess the required experience, failure of which they shall be rejected even if they are favourites of the lot (VI, 765b1-5). Also, the director of education and the censors of compositions shall not be

less than fifty years old (VI, 765d4-6; VII, 802b1-2). The Guardians of the Laws, though having a maximum tenure of twenty years, can neither hold office before age fifty nor beyond age seventy (*Laws* VI, 755a). If appointed at age sixty, they can only serve a maximum of ten years (*ibid.*). It is also by learning from experience that paediatric nurses and women can cure Corybantic conditions (*Laws* VII, 790d4-6; cf. *Theaetetus* 149b10-c5).

There is also qualification based on one's social status or property-class. In the *Laws*, only citizens qualify for civic and political appointments (cf. VIII, 846d). But citizens do not qualify, with their slaves (by social standing), to engage in craftsmanship (VIII, 846d). Of citizens, there are further distinctions between those who qualify to take up certain positions. Umpires for athletic contest, for instance, shall be chosen from the second and third property classes (*Laws* VI, 765c1-3). Only citizens of the highest property-class can be appointed to the office of the City-Warden while only those of the first and second property-classes can be elected to the office of Market-Warden (*Laws* VI, 763d-e). Apart from their duties of protecting the state's social amenities and supervising building constructions, the City-Wardens need time to engage in public affairs, hence their choice from the highest property-class; probably their wealth will allow for the leisure of engaging in public affairs (*Laws* VI, 763d). In this light, attendance at the assembly is optional only for members of the third and fourth classes (*Laws* VI, 764a). A fine of ten drachmas shall be paid by members of the first and second classes who fail to attend the assembly (*Laws* VI, 764a).

In addition to all the required qualifications, officials must possess good standing in their moral lives and family background (*Laws* VI, 751c). The director of education, for instance, must be a father of legitimate children (*Laws* VI, 765d6-7). Thus, in seeking political and civic appointment, Plato outlines certain preliminary qualifications such as age, social status or property-class, and education. Following these qualifications, elections are held and the one with the most votes undergoes scrutiny to determine his or her suitability for the job (cf. *Laws* VI, 753c-d, 755c-756a).

### **Rights of the Individual in Relation to Work**

In Plato's *Laws*, there is no need for labour unions considering the goal of the state to ensure a proportionate distribution of wealth and property and avoid the corruption and evils that the extremes of wealth and poverty could bring in society (*Laws* V, 737a-b). Thus, market and economic regulations seek to prevent corruption from creeping into the society (*Laws* VIII, 847bff.). Any attempt to make wealth the focus of life is illegal. The same is true of the *Republic*. The workers are at the whim of the philosopher-kings, who must also ensure that the extremes of wealth and poverty are avoided (IV, 421dff.; VIII, 547-548). Admitting labour unions will jeopardize the effective running of the state since it will focus individual's minds on unnecessary agitation, strikes, and the desire to make money. The laws are enough to ensure the proper working conditions of each person.

The absence of labour unions, however, does not mean that workers have no rights. In the *Laws*, craftsmen have the right to be paid (XI, 920e, 921a10-b2) and even sue at court for breach of contracts (XI, 921c6-d1; cf. VIII, 847b2-6). Individuals are encouraged to honour the contractual agreements they have entered with others (cf. XI, 921a). However, contractual agreements shall not be binding on an individual under the following conditions: (1) when the work contracted is illegal, (2) when the agreement is rushed, and (3) when because of unforeseen circumstances, an individual is involuntarily prevented from fulfilling his contractual obligation (XI, 920d1-7). Slaves also have some rights. They have the privilege of giving evidence at murder trials (XI, 937b) and prosecuting other slaves for committing or plotting murder (IX, 872a). The murder of a slave is considered pollution, and a man is submitted to trial if he killed a slave for fear that his shameful conduct will be reported (IX, 872c). Also, slaves can be set free if they render assistance to a victim of parental assault (IX, 881c), report to officials the tampering of another's treasure by someone else (XI, 914a), or inform officials of the neglect or ill-treatment of a parent by a man (XI, 932d). In giving out such information, they receive protection from injury (*ibid.*). Likewise, citizens and foreigners enjoy the protection of the law (IX, 865aff.). Foreigners, for instance, have the right of sacrosanctity with regards to contracts (V, 729e), and in most cases citizens receive the lightest punishments for offences (VI, 764b; VIII, 845a; IX, 865aff.).

Not all workers have the right to property. In the *Republic*, guardians require the greatest devotion to their cause so private property is restricted only to the wage-earning class (III, 416d; V,

464b; cf. *Laws* 739c-d). In the *Laws*, however, every citizen has the right to property. Nevertheless, there are regulations that govern the possession of property. Lands and houses must be distributed equally amongst citizens but with the intention that each man regards his portion of the land as belonging commonly to the state (V, 740a, 737c). The lands must be permanently held so that there is no increase or decrease for any given family (V, 740b, 741b); the lands cannot, with the houses, be bought or sold (V, 741b-c). There shall not be a redistribution of or encroachment on the land of citizens (VIII, 842e-843c). By this, the holdings of a man can only be inherited by one heir, his favourite son (V, 740b). This is a deviation from the practice of primogeniture which existed in Attic Greek society where the inheritance was equally distributed by lot among all the surviving sons (Murray 1988, p. 205). Except for the Country-Wardens or Guards-in-Chief and their assistants (VI, 763a), citizens can also possess slaves as their property (III, 690b1-2). The property of individuals shall also not be touched or tampered with (*Laws* XI, 913a; VIII, 843a-e; cf. XI, 915d).

### Conclusion

Plato presents interesting thoughts on labour by combining mythological, economic, social, and ethical ideas. With reference to his *Republic* and *Laws*, these ideas (except for the mythological account) are founded on the goal of each of the societies envisaged in these works, which basically is towards the efficient running of their respective states. An underlying principle is the need to prevent the extremes of wealth and poverty and ensure proportionate distribution of wealth and property. Thus, we find these goals reflected in the various economic regulations, the education of workers, the need for division of labour and specialization, the importance of leisure for the cultivation of the highest form of life, and the moral implications of laziness, idleness and corruption. Labour, even the one that involves exertion of physical strength, is not to Plato a kind of ill if it is productive. But, idleness, not leisure, is a kind of ill. The need for leisure also does not imply that labour is a curse for man. Leisure must be used for something productive, that is, the cultivation of moral, physical and mental excellence. The goals of labour are also reflected in the need for harmonious social relations among inhabitants of the respective societies.

Plato's ideas on labour are influenced by the societal goals and the laws he proposes to achieve them. Therefore, he does not devote any part of his works to a formal discussion of labour. He believes that the laws and regulations would cater for any problem that may arise from the work of the classes. Once the laws and principles are followed, Plato believes that the ills and evils that result from labour would never arise since every individual would neither be too rich nor too poor, and there would be harmony in society. But this requires an efficient labour system, where each person does what he is required to do, otherwise the foundation of the laws will be weakened, and society will be corrupted.

Another factor responsible for the efficient running of the *poleis* lies in the work of those in whose hands the states' administration is entrusted. Every practical work needs directional knowledge. One of the ills of society that Plato sought to correct was the corruption of leaders (*Laws* III, 691a). How would there be efficiency in society if those who possess practical knowledge are deprived of the right supervision for their work? For Plato, then, an education and training based on productive leisure is the catalyst for an efficiently run state. Those who are to give directional knowledge must devote themselves solely to this purpose, and not regard it as secondary. This should be their sole vocation.

Nevertheless, Plato's emphasis on theoretical knowledge or mental labour does not undermine the role of manual labour in its contribution to societal goals. In fact, both mental and manual labour cannot do without each other, but for manual labour to operate effectively in society, it would need the supervision of people who are highly trained in the cultivation of moral virtue and physical perfection, so that they can run the affairs of the state in a manner which will translate into happiness for all. Therefore, Plato gives the basic requirements for manual labour to be the evidence of a skill, and to some extent, experience. But for mental labour, several details come to play in determining who qualifies for certain positions.

Largely, the need to achieve the respective societal goals is what drives the various provisions of labour in Plato's thought. Thus, any attempt at studying labour in Plato's thought must be done considering the various philosophical, ethical, psychological and economic ideas in his works. This is also important because these principles are the fundamentals on which the major concepts

he discusses are founded. It is not surprising then that his thoughts on labour are a mix of these principles. This criterion would also apply in resolving any seeming contradictions concerning Plato's thoughts on labour across various dialogues.

### Conflicts of Interest

The author declares the work has no conflicts of interest.

### Endnotes

1. All references to Plato's works are to his *Complete Works* edited by Jonathan Cooper.
2. All references to Aristotle's works are to his *Complete Works* (vol. 2) edited by Jonathan Barnes.
3. All references to Ovid's *Metamorphoses* are that of Mary M. Innes' translation.
4. For a discussion on how Plato makes use of the myth of the 'Golden Age' in his works, see John Dillon (1992): 21-36.

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RESEARCH ARTICLE



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## Some Aspects of Eco Tourism with View to Montenegro: Overview

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### **Abstract**

The International Ecotourism Society defines ecotourism as responsible travel to natural areas that conserves the environment and sustains the well-being of local people (Honey, 1999). Thus, Ecotourism has been promoted as a non-consumptive use of nature and as a possible win – win development strategy, especially for underdeveloped areas. It should generate money in an ecologically and socially friendly way than other forms of land exploitation (Edwards et al., 1998). This article points to some aspects of eco-tourism, with emphasis on the Montenegro. The country has especially much to offer to nature enthusiasts.

**Keywords:** Aspects, Eco tourism, Montenegro, Planning.

### **Introduction**

Ecotourism is about uniting conservation, communities, and sustainable travel. This means that those who implement, participate in and market ecotourism activities should adopt the following ecotourism principles: Minimize physical, social, behavioral, and psychological impacts; build environmental and cultural awareness and respect, provide positive experiences for both visitors and hosts; provide direct financial benefits for conservation; generate financial benefits for both local people and private industry; deliver memorable interpretative experiences to visitors that help raise sensitivity to host countries' political, environmental, and social climates; design, construct and operate low-impact facilities; recognize the rights and spiritual beliefs of the Indigenous; people in your community and work in partnership with them to create empowerment.

Since the term and concept of ecotourism first emerged, it has been seen as a savior of the environment, but it has also been used as a marketing ploy. In some cases, ecotourism means sustainable development of tourism (Masberg, & Morales, 1999). “In other situations the term is used as a method of increasing tourism traffic and economic impact (Cater, 1994; Ceballas-Lascurian, 1991; Ceballas-Lascurian, 1996; Dimanche, & Smith, 1996; Kutay, 1989). Whatever the definition of ecotourism, it is the fastest growing segment of the tourism industry (Higgins, 1996; Kusler, 1991a; Kusler, 1991b). Many tourism operations which have exploited the environment in

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the past are now supporting efforts to provide a 'green' or 'alternative' experience for traditional mass tourists (Cater, 1994; Masberg, & Morales, 1999).

There are innumerable examples of appropriate developments which are successful in terms of attracting tourists and contributing to local sustainable development [as, in fact, 'mass' tourism does in particular contexts], although a balanced relationship between 'hosts' and 'guests' is unlikely. Therefore, it matters little whether tourists' motives and behavior are ego-centric or focused on the destination. By extension, it also becomes less relevant, or even irrelevant to attempt to categories particular tourists as ecotourists. Not only is it likely that significant numbers of tourists will adhere to the required responsible tourist practices as listed in numerous codes of conduct [which conveniently overlook the unsustainable nature of travel to most international tourist destinations], but also the focus of such codes is increasingly on environmental protection, a worthy objective in any tourism destination (Sharpley, 2006).

This paper points to some aspects of eco-tourism with a focus on Montenegro. Therefore, for the development of eco tourism in Montenegro necessary is: a serious approach to the role of the state (creation of initial conditions and motivation); the active role of local government; the creation of the necessary infrastructure for ecotourism; intense training and raising environmental awareness; the adoption and implementation of international standard ISO 14001 and Green Globe 21 and obligatory certification of integrated system of eco-tourism; The continuous monitoring of the state authorities (on the spot checks, with the help of satellite tracking, eco-police) and a system of continuous improvement; the establishment of a strong and responsible marketing; to promote research program status and protection of the environment.

### **Methods**

The whole information volume in this article was obtained through specific methods for the selective research, respecting all its stages from the methodological point of view: identification of the researched issue, research framework delimitation, information collection, data processing, analysis and interpretation drawing up the conclusions. Research also played an important role in the article, which consisted, in the identification of other studies and articles from the international literature on the same subject (Rajović, 2015; Bulatović, & Rajović, 2016). The research results are based on a series of mainly qualitative analyses, on the one hand, and a series of logical rationales, on the other hand (Rajović, & Bulatović, 2016).

### **Results and Discussion**

Findings from the analysis indicate that sustainable development has been used widely due to the World Commission on Environment and Development's [WCED] vague definition, which allows open interpretations of the term (Beeler, 2000; Hall, & Lew, 1998; Wackernagel, & Rees, 1996; WCED, 1987). On the other hand, the very same ambiguity has jeopardized its practical implementation since almost any action could be justified under such a broad definition. Still the vagueness of the definition may be necessary, since more explicit definitions could be too specific to use. Sustainable development should focus on the type of development instead of economic expansion.

Some authors argue that development has often emphasized economic growth while neglecting the ecological limitations and social welfare of the society. They claim progress ought to be redefined and measured in quality of life indicators such as access to education, food and health care compared to previous indicators centered around capital growth. Sustainable development would seem more sustainable if the term were changed to developing sustainability (Beeler, 2000; Wackernagel, & Rees, 1996). As shown in Figure 1, sustainable development aims to provide a balance between the economy, the environment and society. The triangle stresses the idea that all sides are interdependent and must coexist in order to promote successful long-term development. Essentially, ecotourism can work as a form of sustainable development if it includes all three areas of the sustainable development triangle and brings benefits to current and future generations.



**Fig. 1.** Sustainable Development Triangle (Buchsbaum, 2004; World Conservation Union, 2003).

Other studies also point out that the indicators are the measurement of a particular criteria; it is used for two purposes, namely information quantification to explain in detail the study and to summarize information of a certain complex situation so that it can be easily understood. Sustainable indicators are tools to measure changes, to identify processes and provide frameworks for setting up targets and monitoring performance. The indicators provide a method to chart progress towards the importance of the objective to achieve a balanced form of development in the social, economic and environmental aspects as the primary objective of sustainable development of a nation (Crabtree, & Bayfield, 1998; Mapjabil, Marzuki, Zainol, Jusoh, & Ramli, 2015; Sham, 2001).

**Table 1.** Main Indicators of Sustainable Tourism

Indicators	Detailed Measurement	Indicator Field
1. Site maintenance	Site maintenance categories following the index of "International Union for the Conservation of Nature and Natural Resources (IUCN)".	Ecology
2. Pressure	Total number of incoming tourists to the destination (yearly& monthly).	Ecology
3. Intensive use	Highest intensive usage (number of visitors per hectare).	Ecology

4. Waste disposal Management	Percentage of waste sent to landfill area (additional indicators such as water supply can also be used).	Ecology
5. Critical ecosystem	Amount of unique species, extinct and will extinct at the destination	Ecology
6. Social impact	The ratio of the number of tourists to local community (during peak periods and subsequent periods).	Social
7. Local community's satisfaction	Level of satisfaction expressed by the local community (using survey questionnaires).	Economy
8. Development control	Using the environment reference procedure or formal control towards the development of the site and density.	Planning
9. Planning process	Use the regional plans that have been schemed for the area including tourism planning.	Planning
10. Visitors' satisfaction (tourists)	Level of satisfaction as expressed by tourists (using survey questionnaires).	Economy
11. Contribution to the local economy	Part of the total economic contribution derived from the tourism sector.	Economy

Sources: Dymond, (1997) and Mapjabil et al. (2015).

According to the World Tourism Organization (WTO, 2004) some of the benefits of good indicators are the following:(1) Better decision making lower risks and costs; (2) Identification of emerging issues – allowing prevention; (3) Identification of impacts – allowing corrective action when needed; (4) Performance management of the implementation of plans and management

activities – evaluating progress in the sustainable development of tourism; (5) Reduced risk of planning mistakes – identifying limits and opportunities; (6) Greater accountability – credible information for the public and other stakeholders of tourism fostering accountability for its wise use in decision making and (7) Constant monitoring that can lead to continuous improvement – building solutions into management Indicators were originally developed to assess and monitor changes in national economies.

Ecotourism is the development of a region’s tourism industry in such a way as to not damage or deplete the resources and attractions that make the region attractive to tourists (Singhet al., 2011). The magnitude of the tourism industry can be clearly seen from the World Travel and Tourism Council (WTTC, 2002) statistics. The WTTC, according to Singh et al. (2011) estimates that in the year 2002, travel, tourism and related activities will contribute to approximately 10 % of the world’s GDP with a projected growth up to 10.6 % by 2012. The industry is currently estimated to help generate 1 in every 12.8 jobs, 7.8 % of total employment. This will rise to 8.6 % by 2012 (WTTC, 2002). Table 2 presents several definitions of ecotourism that have been stated by researchers, organizations and public institutions within the fields of tourism and ecotourism specifically.

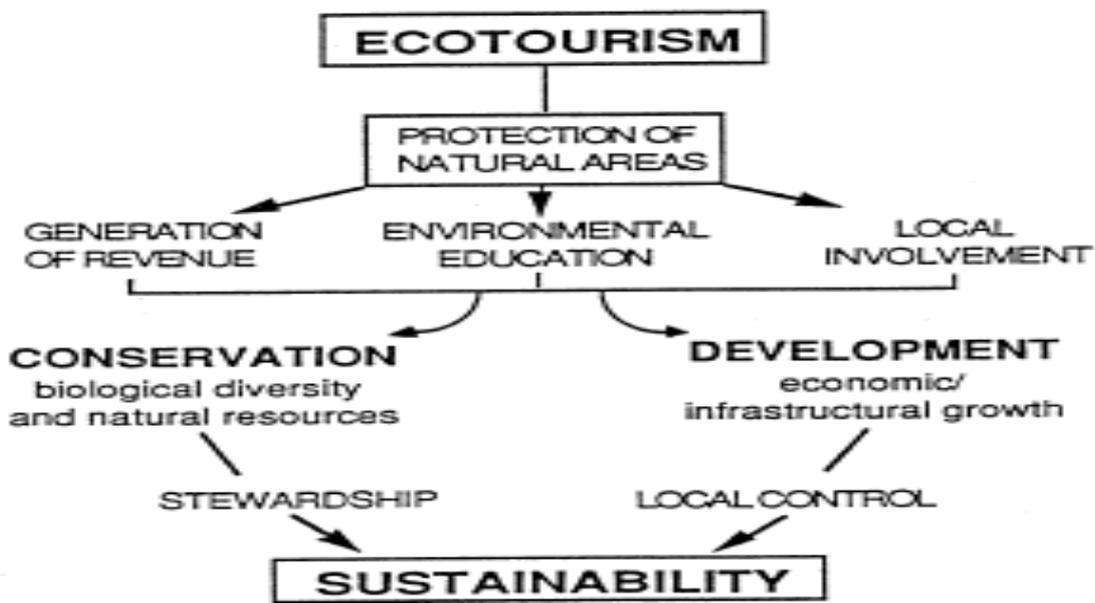
**Table 2.** Ecotourism Definition

TIES (1990)	“Responsible travel to natural areas that conserves the environment and improves the well-being of local people”.
Wallace and Pierce (1996, p. 848)	“Travelling to relatively undisturbed natural areas for study, enjoyment, or volunteer assistance. It is travel that concerns itself with flora, fauna, geology, and ecosystems of an area, as well as the people (caretakers) who live nearby, their needs, their culture, and their relationship to the land [...]”.
Global Development Research Centre, GDRC (2002, p. 1-2)	“[It] contributes actively to the conservation of natural and cultural heritage, [it] includes local and indigenous communities in its planning, development and operation, and contributing to their well-being, [it] interprets the natural and cultural heritage of the destination to visitors, [it] lends itself better to independent travelers, as well as to organized tours for small size groups”.
Hall and Page (2006, p. 284)	“Any form of tourism development which is regarded as environmentally friendly and has the capacity to act as a branding mechanism for some forms of tourist products’ “Green’ or ‘nature-based’ tourism which is essentially a form of special interest tourism and refers to a specific market segment and the products are generated for that segment’ ‘A form of nature-based tourism that involves education and interpretation of the natural environment and is managed to be ecologically and culturally sustainable”.

<p>Honey (2008, p. 32-33)</p>	<p>“Ecotourism is to travel to fragile, pristine, and usually protected areas that strive to be low impact and (often) small scale. It helps educate the traveler, provides funds for conservation, directly benefits the economic development and political empowerment of local communities, and fosters respect for different cultures and for human rights”.</p>
<p>Camorata (2013, p. 200)</p>	<p>“Traveling to a remote area to enjoy, protect, and bring awareness to endangered wildlife [...] [It] is about having low impact on the environment – a “leave-no-trace” mindset – while also promoting conservation for the area”.</p>

Source: Eriksson and Lidström (2013).

Ross and Wall (1999) the perspectives on ecotourism are congruent with the above definitions [Fig. 2]. Ecotourism is viewed as a means of protecting natural areas through the generation of revenues, environmental education and the involvement of local people (in both decisions regarding appropriate developments and associated benefits). In such ways, both conservation and development will be promoted in sustainable forms (all malleable and contested concepts!).

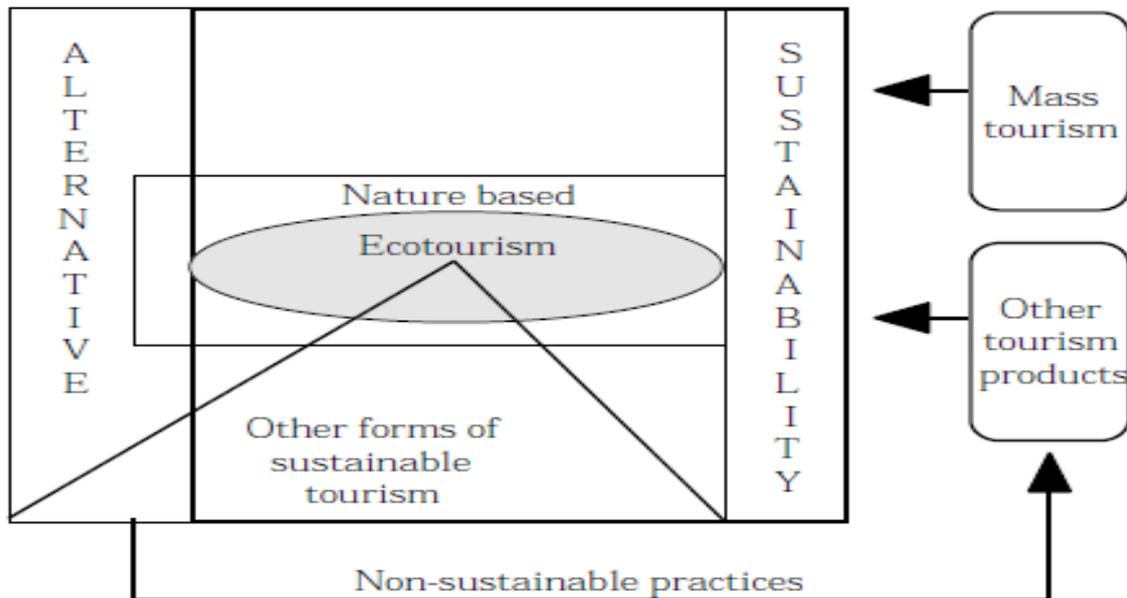


**Fig. 2.** Ecotourism Protects the Environment while Contributing to Socio–Economic Development, and thus, Strives for Sustainability (Ross, & Wall, 1999).

Since stakeholders of a community include different entities, ecotourism is only achieved when all stakeholders understand the concept of ecotourism and cooperate to achieve its goal. Stakeholders could be local authorities, governmental and non- governmental organizations, local community members, private sector, and international development agencies. Stakeholders at the national and international levels should agree on the definitions and principles of ecotourism to help achieve its overall goals. This in turn can decrease the impact of ecotourism and maximize its benefits. Principles of ecotourism vary depending on the definition of ecotourism being used.

However, there are some common principles, and these are generally related to conservation, sustainability and economic development (Al – mughrabi, 2007).

Ecotourism is treated both as a sub-component of alternative tourism and as natural-based tourism, being mainly part of the concept of sustainability. In addition, other forms of sustainable tourism have claimed to have similarities with ecotourism as well as being part of both nature based travel and alternative tourism (see Figure 3). For example, ecotourism has claimed to have similarities with soft ecotourism, nature orientated tourism, and nature tourism nature-based tourism and wildlife tourism (Diamantis, & Ladkin, 1999).



**Fig. 3.** The position of ecotourism within the tourism products spectrum (Diamantis, 1998; Diamantis, & Ladkin, 1999)

On the other end of the spectrum, according to Diamantis and Ladkin (1999) citing research Jaakson (1997) indicates that “both mass tourism and other forms of tourism such as events/festivals, conference and business tourism, are searching for sustainability in their practices and as such are placed outside the sustainability borders. Ecotourism characteristics are opposite to those of mass tourism especially the experiential aspects of both concepts. For instance, for ecotourism holidays the product is not commoditized and the experience is not contrived whereas for mass tourism the product is commoditized and the experience is contrived. Finally, certain practices of alternative, nature based, ecotourism, and sustainable forms of tourism which have practiced unsustainable principles are situated outside the borders of sustainability and have been repositioned with other tourism products which are searching for sustainable practices”.

Thanks to the still untouched middle, a large diversity in a relatively small area and its rich cultural heritage Montenegro has great potential for development of ecotourism. Protected areas, especially national parks, represent a valuable space for activities of ecotourism. National park Durmitor is on the UNESCO list of World Natural Heritage, National park Biogradska Gora includes one of the oldest forested areas of Europe. National park Skadar Lake is on the list of Ramsar wetland areas of international importance, while National park Lovćen represents the natural, cultural and historical worth area. In addition, you can relax and enjoy the unspoiled nature; visitors can exercise the different activities that do not disturb the environment. The NP Durmitor can enjoy a walk around the Black Lake, engage in speleologist, camp and embark on a unique adventure rafting Tarom (Bećagol, 2014). On Biogradskoj Gori, in addition to walking through one of the last rainforests in Europe and marked hiking trails, visitors can try out rowing the beautiful Biogradsko Lake. In addition to walking and cycling, the National park Skadar Lake can enjoy a boat ride on the lake and in boats, as well as the increasingly popular bird watching, as

the Skadar Lake greatest ornithological object in Montenegro. The National park Lovćen after visiting the mausoleum of Njegoš, one can make hiking trails to lookouts where are provided wide vistas of and looks at the whole environment: the Boka Kotorska, Cetinje with the surroundings and Skadar Lake. The centers for visitors in national parks can learn more about the natural and cultural heritage of the region, and the local population to buy some of the local products: cheese, ham, honey, wine, brandy. We should mention, in recent years all over Montenegro are springing up many ethno and eco-villages (Bećagol, 2014). Among them are: Komnenovo, Izlazak, Montenegro, Nevidio, Jugoslavija, MiloGora, Goleš, Vuković, Štavna, Vranjak, and Kadmi.



**Fig. 4.** Eco Village Yugoslavia, Montenegro

As noted in Figure 4, Eco Village Yugoslavia - is one of most beautiful eco-villages in Montenegro (At an altitude of 1050 meters on the slopes of the mountain Pivske in Crkvičkom Polju, is an eco-village of Yugoslavia. The idyllic atmosphere of villages and unspoiled nature attracts tourists looking for peace and quiet. The village has seven bungalows (total of 20 beds) - log cabins, comfortably furnished and each with a private bathroom. These are two-bed, four-bed bungalows and with French bearing perfectly integrated into the natural environment. Of course, the Montenegrin national dishes you can sample in the restaurant the eco village "Yugoslavia", which also serve naturally grown products from this region. For the more active visitor we offer a large number of facilities: rafting cruise Pivskim Lake, hiking, village tours, cycling, and horse riding. Of course, the indispensable and visits to cultural and historical monuments and monasteries – Soko grad, Piva monastery, Ostrog, and ride to Zabljak attractive "Durmitor Ring" and panoramic tours. In the village "Yugoslavia" there is space for camping).

The research initiatives of the Centre for Sustainable Tourism (2007) sought to collect more detailed information about what tourists think of national parks and other key products available in the north of Montenegro. Respondents were asked to evaluate the quality of each product on a scale of 1–5, where 1 indicates that the general assessment of "poor" and 5 indicating "very good". Based on their responses were calculated indicators of quality evaluation. The final indicators are given in Table 3.

**Table 3.** Indicators Ratings Quality

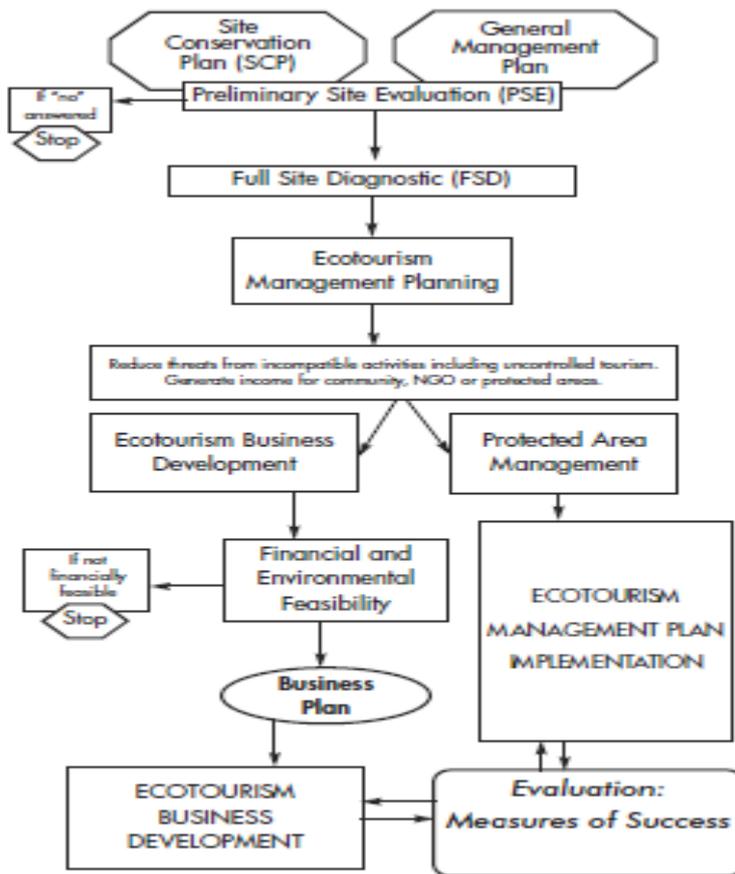
Questions the referred to the	Indicator assessment quality
National parks	4.63
Cultural - historical monuments	4.27
Accommodation	4.21
The restaurant / bar / coffee shops	4.16
Recreational activities	4.12
Beaches	4.11
Tour operator / travel agency	3.80
Souvenirs / cottage industry	3.80
Services guide	3.68
Purchase	3.50
Local transport	3.30

Source: Center for Initiatives Sustainable Tourism (2007).

National parks are the best rated (4.63), and cultural–historical monuments (4.27). The development of the tourism industry around these values creates opportunities for the preservation of the cultural heritage of the region and to create opportunities for economic development in the surrounding communities. Local and national authorities, along with tourism entrepreneurs, are increasingly investing in areas located around the National Parks, cultural and historical attractions. It is very important that both public and private sector concerned about protecting these unique natural and historical attractions. Tourists have expressed their general satisfaction with the available accommodation in the municipalities in the northern and central part of Montenegro. Many tourists from Serbia and other countries in the region are still staying in private accommodation, while tourists from the European Union prefer simpler hotels, 1 – 3 stars or camping (Center for Initiatives Sustainable Tourism, 2007).

Further investments in this type of accommodation will contribute to the maintenance of social and cultural authenticity of host communities, helping them to preserve their cultural heritage and traditional values and allow them a viable long-term economic prosperity, including stable employment and higher income earning opportunities. Unlike high scores accommodation, local transportation got a bad score (3.30). In addition to the poor road infrastructure in the northern region, the problems related to transportation include: limited services or lack of public transport between key tourist destinations, unsteady schedule guidance existing bus lines, insufficient signposting traffic signs on roads and big municipal centers, the lack of available taxi services and the lack of standardize the price of transport which causes the formation of unrealistic price in certain cases. In order to improve overall tourist experience in northern and central regions, will be necessary in order to improve road infrastructure and the use of reliable, cost-effective option (Center for Initiatives Sustainable Tourism, 2007).

An Ecotourism Management should be based on the consensus of: (1) tourism professionals (operators and guides) interested in and/or involved with the protected area; (2) representatives from communities who will be impacted by ecotourism; (3) representatives from local governments, government agencies, NGOs and others who have an interest in ecotourism development in the region; (4) as well as protected area staff who know the area well and who will be responsible for the plan's implementation (Drumm, 2002). Drake (1991), drawing on the work of Paul (1987) according Garrod (2003) suggests the following benefits associated with local participation in ecotourism projects: (1) Increasing project efficiency by consulting with local people or involving them in the management of the project's implementation and/or operation; (2) Increasing project effectiveness through greater local involvement to help ensure that the project aims are met and the benefits are received by the intended group; (3) Building capacity among beneficiaries to understand what ecotourism is and how it can contribute to sustainable development (by ensuring that participants are actively involved in the project at very stage, and by formal and/or informal training and awareness-raising activities);



**Fig. 5.** An Overview of the Ecotourism Management and Development Planning Process (Drumm, 2002)

(4) Increasing local empowerment by seeking to give local people greater control over their resources and the decisions relating to the use of such resources that affect their lives (this means ensuring that local people receive the benefits associated with the use of those resources); (5) Sharing costs with the local beneficiaries, for example labour costs, the costs of financing, operating and maintaining the project, and/or the project's monitoring and evaluation costs. At the same time, Drake (1991) according to Garrod (2003) also notes the following disadvantages with the participatory planning approach: (1) Managing local participation frequently increases the number of staff required to run the project; (2) Pressure is often exerted by the community to extend the scope or form of the project beyond that originally planned for, with consequent increases in project costs; (3) Planners risk losing the project to opposing forces who are looking to take control of the project away from the implementing agency; (4) Benefits may not always reach their intended recipients; (5) Informing local people can increase their aspirations for the project, leading to greater dissatisfaction or frustration should the project fail, become delayed, or only partially perform; (6) Attempts to involve the local community may bring to the fore latent conflicts that serve to frustrate the implementation of the project (Ahmadi, Khajeh, 2015; Bunruamkaew, & Murayama, 2012; Jimura, 2011).

In front of a destination management company, together with the Government and various of stakeholders – it has, says, among other things, and implementation of the current Master Plan for Tourism Development, whose main qualitative and quantitative targets summarized according to Ratković (2010) in Table 4 (See Strategic indicators from the Master Development Plan that relates to eco-tourism of Montenegro 2020).

**Table 4.** Strategic Indicators from the Master Development Plan that Relates to Eco-Tourism of Montenegro 2020

<b>Vision</b>	<b>Montenegro - Wild Beauty resort</b>	The destination brand - Wild Beauty resort – Montenegro as a unique destination. The core brand consists diversity appetizers and beauty - Wild Beauty - and regional identities. Their protection and maintenance are essential components of the quality strategy. Sustainable development.
<b>Mission</b>	<b>Dispersion a bid</b>	Bathing tourism, Mediterranean spirit, year-round openness - Budva, Bar.
		Bathing tourism and tourism in the nature of international rank and year-round openness, Ulcinj.
		Bathing tourism, cultural tourism, health tourism, and athletic, high-quality destination open all year round for individual and package tourism, Boka Kotorska.
		Nature tourism, sports and rural tourism, theme tourism, eco-tourism, Skadarsko Lake and Cetinje.
		Nature tourism, sports tourism, wellness in nature, Bjelasica, Komovi, Prokletije, Plav.
		Nature tourism, sports tourism, family vacations, Durmitor, Sinjajevina, Žabljak, Plužine, Boan, Šavnik.
		Integrated tourist offer panoramic roads and trails with an accompanying offer strip of coastal region to Durmitor.

		By integrating the tourist offer panoramic roads and trails with an accompanying offer (Health, wellness, culture), the belt of the coastal region to Bjelasice and Komova.
<b>Objectives</b>	<b>Economic</b>	Hotel beds - year 2020 111.100 (Coast 85%), total 300,000 (Coast 93%).
		Hotel overnights - year 2020 21.6 mil., Total 39.6 million.
		Revenues of hotel - year 2020, 2.32 € billion, total tourism 2.9 billion €.
		Direct employment in the tourism year 2020 – 32.275 workers.
	<b>Market</b>	Target occupancy rate of 53.3% (194 days), total 39.6% (144 days).
		% of hotel overnights in year 2020 54.6%.
		Average revenue per hotel night year 2020 € 104.17.
		Target markets: EU hotels, the domestic market for complementary accommodation.
		Elective tourism, mainly 3 and 4 *(77%), 5* 15,8 % and 1* 7,1%.
	<b>Ecological</b>	Sustainable Development.
		Protection of nature.
		Enlargement beach.
		Located objects to the hinterland, administrative toward the beach.

Source: Ratković (2010).

In the field of destination management according to Ratković (2010), it is necessary to build up organizational mechanisms to mobilize all stakeholders in the tourism sector in the implementation of the strategic objectives of the Master Plan, as well as in the integration of their strategic and operational business policies in that direction.

Montenegro is for a long time been absent from the tourism market due to known events of the nineties and the breakup of the former Yugoslavia. Our research record is based on similar studies points out that during this time, the tourism market has taken place a number of changes that have made a priority objective of reintegration into the framework of modern tourist flows (Đuričić, Đuričić, & Avakumović, 2009). The characteristic of modern tourist restructuring is incorporation efficient ecological component in tourism product and its promotion, treating it as a very important link to achieve a competitive position and a condition for attracting tourist demand. Even more, this is the priority objective in the process of reintegration into modern tourist flows and the basis for strengthening its competitiveness. Successful implementation of environmental components [environmental protection, giving priority to those products that are organized in accordance with environmental standards ...] in future implementation of marketing activities in tourism is the foundation on which to build a lasting competitiveness in tourism. Tourism development should be to emphasize environmental, health, recreational value and specificity of receptive space. In all this, the EU market will have a dominant position within the development parameters (Đuričić et al., 2009).

### Conclusion

In many developing countries, there are three major barriers to community participation in tourism development process which include operational, structural and cultural barriers (Yeboah, 2013; Tosun, 2000). Yeboah (2013) citing research Murray (2004), Steven and Jennifer (2002), Tosun (2000), Moscardo (2008), Fariborz and Ma'of (2008), the *“operational barriers are obstacles which include the centralization of public administration of tourism development. They also include lack of coordination between involved parties and lack of information made available to the local people of the tourist destination during the implementation of tourism projects. Structural barriers are usually associated with institutional power structures, legislative, and economic systems. These involve attitudes of professionals, lack of expertise, lack of appropriate legal system and lack of financial resources. Cultural barriers are factors which function as obstacles to tourism development in the destination communities. These include limited capacity of poor people to handle development effectively, religious beliefs and low level of tourism awareness in the local community. Although are there is no special reason beyond this is classification, it is supposed that it will facilitate understanding of barriers to community participation in tourism development, at least, at a theoretical level”*.

Montenegro possesses significant natural wealth that can be valorized through ecotourism. In order for that to be successful, our research records based on a similar survey Milivojević, Milovanović - Kanjevac, and Arsić – Kokić (2006) indicate that it is necessary: (1) a serious approach to the role of the state (creation of initial conditions and motivation); (2) the active role of local government; (3) the creation of the necessary infrastructure for ecotourism; (4) intense training and raising environmental awareness; (5) the adoption and implementation of international standard ISO 14001 and Green Globe 21 and obligatory certification of integrated system of eco-tourism; (6) The continuous monitoring of the state authorities (on the spot checks, with the help of satellite tracking, eco-police) and a system of continuous improvement; the establishment of a strong and responsible marketing; (7) to promote research program status and protection of the environment.

In consequence, the only real and successful way in the development of eco-tourism is a comprehensive and responsible approach to the issue of permanent preservation of the environment, and thus the natural wealth Montenegro and their preservation for future generations.

### Conflicts of Interest

The authors declare the work has no conflicts of interest.

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RESEARCH ARTICLE



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## Self-Esteem, Needs Satisfaction and Psychological Well-Being of Inmates at James Camp Prison in Ghana

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### **Abstract**

The purpose of this study was to find out the relationship between the self-esteem, needs satisfaction and the psychological well-being of prisoners in Ghana. This study used the correlational survey design method to solicit information from prisoners in the James Camp Prison in Accra. The random sampling technique was used to select 155 male prisoners from an estimated population of 347. The findings revealed the following; a significant positive correlation exists between self-esteem, needs satisfaction and psychological well-being among inmates. Results showed that there was a positive correlation between psychological wellbeing and self-esteem of inmates. Also, there was a significant positive relationship between needs satisfaction and psychological wellbeing. This study recommends that more psychosocial interventions should be provided to promote the mental health of inmates.

**Keywords:** Ghana, Inmates, Needs Satisfaction, Prison, Psychological Well-Being, Self-Esteem.

### **Introduction**

Prisoners are faced with incidence of violence and are always concerned for their safety. Tosh (1982) quoting a long-term prisoner named Jack Abbott stated, "*everyone is afraid, it is not an emotional or psychological fear but it is a practical matter. If you don't threaten someone at the very least, someone will threaten you*" (p. 86). Though prisons aim to cure criminals of crime, their records and personal observations have not been encouraging. Instead, prisons do more harm than good. The pains of jail confinement affect all prisoners in different ways.

Tosh (1982) also noted that, prisoners need to endure the entry shock by adapting quickly to prison life. Prisoners are exposed to a new culture, which is very different from their own culture. Prisons in Ghana are classified based on their level of security, and on the activities undertaken at the various establishments. In the Central Prisons, trade training facilities are provided to equip prisoners with employable skills for their effective reintegration into society. They take custody of long-sentenced prisoners. Central Prisons are for all categories of prisoners,

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with the exception of condemned prisoners. Local Prisons are mainly for the safe custody and welfare of inmates. They usually take custody of short-sentenced prisoners. Open Camp Prisons undertake agricultural activities to provide food and train inmates in modern agricultural practices. Crime is still an ever-present occurrence in Ghana in spite of several efforts made by government and other agencies to clamp down on criminals and improve human and social security of Ghanaians. This is because, the country's prison facilities where criminality is expected to end have become revolving doors. Therefore, inmates are more likely return time and again. More than half of all inmates are likely to return to prison within six years of their release due to the level of degraded human conditions such as food, water, clothing, medicals and detergents (Adu, 2007).

This cycle of having inmates return after their release is partly due to issues regarding self-esteem. Self-esteem is crucial and is the cornerstone for a positive attitude towards living. It is very important because it affects how one thinks, acts and even how a person relates to other people (Maslow, 1987). Imprisonment can have adverse effects on prisoners' self-esteem. One of these effects is a diminished sense of self-worth and personal value. Prisoners typically are denied their basic privacy rights, and lose control over mundane aspects of their existence that most citizens have long taken for granted. They live in small, sometimes extremely cramped spaces and have little or no control over the identity of the person with whom they must share that space. They often have no choice over when they must get up or go to bed, when or what they may eat, amongst others. Thus, a diminished sense of self-worth and personal value may result. In extreme cases of institutionalization, prisoners may come to think of themselves as "the kind of person" who deserves only degradation and stigma to which they have been subjected while incarcerated (Craig, 2001).

In addition to issues regarding self-esteem, imprisonment is also likely to have other numerous effects on prisoners' psychological well-being. Historically, imprisonment was based on punishing those who wronged society, by inflicting suffering. In contrast to this concept, today's imprisonment is no longer simply intended as an acute form of corporal punishment, but a method of transformation through three distinct areas; punishment, deterrence, and rehabilitation (Krestev, Prokipidis, & Sycamniyas, 2005). However, a number of researchers concluded that imprisonment had negative psychological and physical effects on its inmates, leading to psychological deterioration (MacKenzie, & Mitchell, 2005; Yang et al., 2009).

In view of the above listed challenges faced by prisoners, a correlational study is vital to explore the associations between prisoners' self-esteem, needs satisfaction and psychological well-being.

## **Method**

### **Research Design**

The research design used was correlational survey method. It was chosen because it will help to figure out how the variables (self-esteem, needs satisfaction and psychological well-being) are connected to each other.

### **Target Population**

The target population was all male prisoners with varied educational, economic, religious and social background of the James Camp Prison in Accra. The total population of the prisoners in the camp was 347.

### **Sampling Technique**

The Epi Info version 3.5.1 was used to determine the sample size of the research.

Population Size	347
Expected Frequency	10%
Worst Acceptable Value	5%
Confidence Level	99%
Estimated Representative Sample	141

However, to make room for inappropriate completion and non-return of the questionnaire, 14 (more than 10 %) participants were added to round the figure up to 155. Based on this formula, a random sampling technique was used to choose one hundred and fifty-five prisoners. A basket containing folded papers with 'YES' and 'NO' written on them was presented to the participants.

Each member of the population was made to pick one of the folded papers. All those who picked 'YES' automatically became the subjects for the study.

### ***Instrument / Material:***

**Rosenberg Self-Esteem Scale:** It includes 10 items that are scored by attaching a four-point response ranging from "strongly disagree" to "strongly agree". Scores are calculated as follows: For items 1, 2, 4, 6, 7: strongly agree = 3, agree = 2, disagree = 1, strongly disagree = 0. For items 3, 5, 8, 9, 10: strongly agree = 0, agree = 1, disagree = 2, strongly disagree = 3. The scale has been shown to be reliable with a Cronbach's alpha range from .77 to .88.

**Basic Psychological Needs Scale:** The scale has 21 items concerning the three needs for competence, autonomy, and relatedness. It has been shown to be reliable, with Cronbach alphas of about 0.75 (Deci, & Ryan, 1985). The basic psychological need satisfaction scale was scored by attaching a score of 1-4 to the likert scales of "not at all" to "untrue".

**Ryff's Psychological Well-Being Scale:** The scale specifically focuses on measuring multiple facets of psychological well-being. These facets include: self-acceptance, the establishment of quality ties to others, a sense of autonomy in thought and action, the ability to manage complex environment to suit personal needs and values, the pursuit of meaningful goals and a sense of purpose in life and a continued growth and development as a person. A pilot study was conducted on thirty male prisoners to establish the reliability of the scale and a Cronbach's alpha estimated was .76. The Psychological Well-Being Scale was scored by attaching a score of 1-6 to the likert scales of "strongly disagree" to "strongly agree" (Ryff, 1989).

### **Procedure**

Institutional approval was sought from the Acting Director of Prisons and after, the Officer in Charge (OIC) of the James Camp prisons was asked to allow entry in to the James Camp Prison. The questionnaires were administered to the 155 respondent-prisoners in the James Camp Prison. Those who could read and write were given 30 minutes to complete the questionnaires. Participants who could not read the questions on the questionnaires were helped by reading and interpreting for them in their preferred Ghanaian language.

### ***Data Analysis***

The Statistical Package for the Social Sciences (SPSS) version 16 and descriptive statistics were used for the analysis of data.

### **Results**

As revealed in Table 1, a significant positive correlation exists between psychological well-being and self-esteem [ $r = .433$ ], a significant positive correlation exists between psychological well-being and needs satisfaction [ $r = .717$ ], and a significant positive correlation exists between self-esteem and needs satisfaction [ $r = .591$ ]. The significant correlation between the three variables implies that a multiple regression analysis needs to be conducted to test the three hypotheses. Further, the two variables (self-esteem and needs satisfaction) explained 51.5 % variability in the psychological well-being [ODD Ratio = .515]. This is significant as indicated by the ANOVAs/F ratio [ $F_{(2,152)} = 80.605, p = .000$ ].

Results from Standard Multiple Regression Analysis following analysis in Table 1 are presented in Table 2.

**Table 1.** Correlation between Psychological Well-being, Self-Esteem and Needs Satisfaction

Prisoners (n=155)			
Variables	1	2	3
Psychological Well-being	-	.433*	.717*
Self-Esteem	-	-	.591*
Needs Satisfaction	-	-	-

Notes:

\*significant at .05

1. Psychological Well-being

2. Self-Esteem

3. Needs Satisfaction

**Table 2.** Standard Multiple Regression Analysis on relationship between psychological well-being, self-esteem and needs satisfaction of prisoners

Prisoners (n=155)				
Variables	B	Beta	t	p
Psychological Well-being	11.331	-	2.411	.017
Self-Esteem	3.026	.214	3.198	.043
Needs Satisfaction	2.731	.709	10.127	.000

Results in Table 2, showed that a significant positive relationship exists between psychological well-being and self-esteem [ $t = 3.198, p = .043$ ]. Results further indicate that self-esteem explained 21.4% changes/variability in psychological well-being [Beta = .214].

Result from this table further revealed a significant positive correlation between needs satisfaction and psychological well-being [ $t = 10.127, p = .000$ ]. Needs satisfaction also explained 70.9 % changes/variability in psychological well-being [Beta = .709].

In addition, the correlation between self-esteem and needs satisfaction is positive and significant, [ $r_{(153)} = .591, p = .000$ ].

### Discussion

The study investigated the relationship between the self-esteem, needs satisfaction and psychological well-being of prisoners. Findings from this study show a significant positive correlation between psychological well-being and self-esteem. An individual who exhibits mastery over all the aspect of psychological well-being (self-acceptance, purpose in life, positive relationships, personal growth, autonomy, environmental mastery) will also possess a positive self-esteem (Ryff, 1996). Certainly Self-esteem is crucial and is seen as the cornerstone for a positive attitude towards living. Maslow (1979) established a link between self- esteem and psychological well-being. According to him, psychological health is not possible unless the essential core of the person is fundamentally accepted, loved and respected by others and by him or herself. Those who have high self-esteem are presumed to be psychologically happy and healthy (Taylor, & Brown, 1988).

Having high self-esteem apparently provides benefits to those who possess it, they feel good about themselves, they are able to cope effectively with challenges and negative feedback, and they live in a social world in which they believe that people value and respect. Therefore, an individual

who possesses a high self-esteem is likely to exhibit a healthy psychological well-being hence the correlation positive between the two variables. Since our prisoners do not have good psychological well-being, it follows that they have low self-esteem. The study also identified a significant positive correlation between needs satisfaction and psychological well-being. The analysis further revealed that need satisfaction explained 70.9% changes/variability in psychological well-being. This finding is in line with the fact that these three psychological needs (competence, autonomy, and psychological relatedness) stimulate the self to initiate behaviour and promote psychological health and well-being of an individual. Therefore, when the satisfaction of these needs is thwarted the individual may not function well (Deci, & Ryan, 2002). There is lack of personal choice within the prison environment which may affect prisoners need for autonomy. Also, after many years of being told what to do they may well lose the ability to think for themselves and make their own decisions and choices freely (Tosh, 1982). All these factors according to Ryff (1996) have a bearing on one's psychological well-being hence the positive correlation between needs satisfaction and psychological well-being. This is the plight of the Ghanaian prisoner.

Bonet (1997) explained that nothing in the way we think, feel, decide and act escapes the influence of self-esteem. Thus, an individual who is able to fulfill all these needs will have a positive self-esteem. Looking at the prison environment and conditions in Ghana, it is unlikely that Ghanaian prisoners would enjoy sufficient needs satisfaction, high self-esteem and psychological well-being. The Ghanaian prisoner is likely to exhibit the following low self-esteem characteristics such as; having little faith in one's ability to achieve, becoming socially anxious and ineffective, viewing interpersonal relationships as threatening, feeling less positively toward others, lacking confidence in their own judgment and opinions and expect others to reject them (Johnson, 1996; Michener et al., 2004).

### Conclusion

The study investigated the relationship between self-esteem, needs satisfaction and psychological well-being of prisoners. Results showed that positive correlation exists between self-esteem, needs satisfaction and psychological well-being. In all, the Ghanaian prisoner lacks needs satisfaction, inadequate psychological well-being and low self-esteem. The study recommends that counselling should be strengthened in our prisons to help reduce the psychological effects of imprisonment on inmates. By doing this, programmes which will best match offenders to their needs must be established. This may include; cognitive distortion restructuring, substance/drug-abuse treatment, anger management, decision making processes and techniques, behaviour modification, prison stress management, employable skills training and conflict resolution. In addition, prison officers must exhibit unconditional positive regard attitude to all manner of prisoners. This can help improve the prisoners' self-esteem, psychological well-being and their easy integration into society.

### Conflicts of Interest

The authors declare the work has no conflicts of interest.

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RESEARCH ARTICLE



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## **The Crash of Humanism and Humboldt's Epoch in German Universities: Implications for Reforming Ukrainian Higher Education System**

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### **Abstract**

This article explores the process of higher education system reformation in Germany during the period from the mid-1960s to mid-1970s. Necessity of the given reforms ripened for several reasons. The first reason was founded on the need for unification for all activities of higher education institutes in Germany, especially the universities. The second reason was based on the preparation for "educational expansion" while the third reason was due to unsatisfactory financing of both universities and university scientists. The German government developed and accepted a number of necessary measures, which appeared vague and inconsistent. These also caused a period of stagnation in the system of German higher education.

**Keywords:** Germany, Higher Education System, Humanism, Humboldt University Model, Humboldt University Model, Ukraine, Unification of Legislation.

### **Introduction**

The discontent with the development of German universities is also evident in a 21st century German society. This is seen, both in the training of students and in other structural challenges. Specifically, these challenges have resulted in the growth in quantity of students expelled from higher institutions for various reasons, the inadequate material support, insufficient level of consulting services and shortages of instructors for students. In addition, there have been the disappearance of "*studium generale*" in training process and insufficient formation of personal qualities of graduates (Huber, 2002; Perkin, 2007; Riess, 2000). The Bologna process promised a flexible running for higher education system, but then again created educational reform which stakes on a new centralism (Reinalda, & Kulesza-Mietkowski, 2005). While the state operates irresolutely and inconsistently, the management of higher education institutions worked too slowly and cared too little about the division of powers in the self-management of universities.

To understand these processes, it is important to carry out an analysis on the basic development and formation marks of German's higher education system in the 20th century.

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Carrying out the given analysis, it is also essential to apply this foreign experience to forecast and prevent possible future errors in the reformation of the Ukrainian system of higher education.

### **Analysis of the Studies and the Need for Application**

Authors of several publications O. Bartz (Bartz, 2005; Bartz, 2006; Bartz, 2007), Uwe Frauenholz, Manuel Schramm (Frauenholz, & Schramm, 2005), H. Heer (Heer, 1967), E. Hobsbawm (Hobsbawm, 1995), K. H. Jarausch (Jarausch, 1999), Ch. Öhler (Oehler, 2000) and Th. Oppermann (Oppermann, 1969) make a short historical review of university education development and formation in Germany. Thus, they try to answer these 2 questions: (i) whether Bologna process threatens to destroy the "educational ideal of Humboldt"? and (ii) whether it will result in degradation of German universities to the level of average professional institutions. Though these authors address the given problem quite differently, they all see the necessity of solving essential practical problems regarding the future of German.

The usefulness of dealing with the problems facing Germany offers an indication to other European countries like Ukraine. The higher education system of Ukraine is also going through an important period of transformation, as it works to integrate itself into the European educational space. Thereupon, it is very important to study the experience of higher education reformations in such developed European countries like Germany, which has impacted on the formation of education system and pedagogical science in Ukraine. Studying the given experience will help Ukraine to understand the essence of changes occurring in the sphere of higher education and to avoid making possible erroneous decisions. It will help Ukraine to also realize the positions of the Bologna declaration by taking into account the national Ukrainian specificity.

### **Educational Expansion German Higher Education System**

The mid-1960s are characterized as a very remarkable period in the development of German higher education system. The German educational policy shows a maximum level of reformatory dynamics in this period. This epoch covers the period of approximately 10 years and is characterized by "educational expansion" which required an urgent realization of reforms (Schimank, 2005). Their urgency has been related to a decrease in competitiveness of universities in their struggle for state financing. They began to concede considerably in this struggle to allow for the system of scientific research institutes to function.

The creation of the Max Planck Society in 1948 forced research work out of universities and concentrated them in the system of numerous research institutions. It also affected the quality of researches and their formations in higher schools. Consequently, education became "the central theme" of many political debates. The transformation process in higher education system generated uncountable discussions and offers for different interested parties. Nevertheless, most of these discussions and offers had little in common with reality. The significant stages of this process are: establishment of new higher education schools, creation of versatile higher education schools, reform of higher education system, development of students and assistants protest movement. The reform process was sometimes accelerated, slowed down or accompanied by advance and recoil. A final point of this reform period was mid-1970s (Buenstorf, 2009; Krabel, & Mueller, 2009).

### **Scientific Council**

The political debates on the field of higher education led to the new epoch in the mid-1960s. At first sight, it would have been possible to assume that the abrupt reversal was already outlined in 1957/58 with the establishment of the Scientific Council. In essence, it was a representational body for all German scientists. Thus, the purpose of its activity was to support science and higher education system in Germany. Furthermore, the Scientific Council also regulated the use of surpluses in the federation's budget for scientific purposes. Every allocation of financial assets by Scientific Council was done in consultations with the federation and all federal states.

In 1960, the Scientific Council made valuable recommendations in a publication called "*Empfehlungen zur Entwicklung von wissenschaftlichen Instituten. Teil I: Hochschulen*" (Wissenschaftsrat, 1960). These recommendations gave rise to the allocation of considerable means for developing higher institutions. The Scientific Council also gave rights to ordinary professors to dominate in defining priorities for their universities. The government in the field of higher education also made a supporting policy to reserve the chair (department) as a base unit

and “embryonic cage” of higher education institutions. The priority task of a chair was to promote the advancement of science.

The Scientific Council also recommended to increase the number of ordinary professors by 40%, that is by 1,200 established posts (Wissenschaftsrat, 1960). Thus, the council implemented the universal preservation of the traditional organizational concept. According to this concept, every chair led his/her own institute and had autonomous powers. For this reason, “*parallel professorate*” was established at many higher education setups. The quantitative development of higher educational institutions could not sharply turn to a new quality perspective. These measures could only satisfy the requirements of university science and the growing educational requirements of the population. The Scientific Council however praised their actions by attributing that the number of students during the period from the late 1920s to the early 1960s had increased from 111,500 to 200,000.

From the review, the Scientific Council could not fully realize the measures needed for the proposed “*radical university education reform*”. It did not deem them necessary but instead, planned to keep the status quo by all means. Within that period, the federal government, the federal states and universities had almost reached a full consensus (Oppermann, 1969). The document on the relations generated among these negotiators was named “*humboldtianism*”.

In practice, one really important proposal of the Scientific Council has not been carried out, and this could become a real innovation for Ukraine. The proposal was that; certain specialties should receive priority development at separate universities. The creation of such structures which named these specialties as priorities [also called “*profiling*” nowadays], contradicted the general postulate of equality of all subjects. Thus, this idea was not accepted in the university circle and in the end, it failed.

### **New Era of German Higher Education**

Apparently, it is difficult to determine the exact date that the new era began in the system of Germany higher education. Experts approximately assert that the mid 1960s evidently became a crucial year in the history of higher education in Germany. Around that time, the well-known book on “*the collapse of German education*” was written by Georg Picht. This book established the fact on rough extensive development of higher education and depicted possible catastrophic consequences of such a development. Picht’s work gained the attention of politicians of all ranks at the time and accelerated the working out of unprecedented measures on higher education development (Picht, 1965).

To explain this further, it was necessary to know the nature of processes which occurred in higher schools’ settings. The nature of these phenomena led the expression - “*educational expansion* and created a sort of “*social revolution*” (Hobsbawm, 1995). In 1964, universities were perceived by politicians as numb structures which are not capable to solve challenges. In particular, a phenomenon of “*high school overcrowding*” and “*training terms lengthening*” had already caused concerns in the circles of teachers and students for a long time. Simultaneously, these occurrences were perceived as real social achievements in the post-war Western Germany in which higher education became more and more accessible to various levels of the population.

The expansion of higher education structures, according to Bartz has not led to improvement of its quality; there were evidently no basis to expect positive results. The creation of additional chairs at universities could not essentially improve the situation in universities (Bartz, 2005; Bartz, 2006; Bartz, 2007). Few years after, such an attempt of direct intervention by political forces in the educational process seemed to be hardly possible. The measures planned by federal state parliament appeared less radical, more balanced and set the readiness of universities to participate in the reforms. Yet, the discontent of politicians towards the rate of reforming universities in Germany grew. Consequently, universities were accused of their unwillingness to migrate from the “Humboldt’s monastery”. According to the politicians, Germany’s system of general education leaned itself against the spiritual riches of the epoch of humanism which ceased to be tangible in 20th century, under the conditions of modern specialization strains. This estimation reflected the mood, which was dominated among German politicians, businessmen and scientists. They realized that the economy and the society then will require much bigger quantity of people with higher education in the future than it was then. This position formed the basis for working out some measures capable to order the “*educational expansion*” in the West German society.

### **New General (Framework) Laws on the Higher School**

At the realization of higher school reform, politicians of different directions and the state engaged in unmatched activities to promote this goal. This led the federal state bodies to concentrate on creating legislative regulations. Their job consisted of working out and approving new general (framework) laws on the higher school. These laws sought to unify the frameworks of activity in all institutes of higher education in each federal state (Metzler, 2005). The process of legislative regulation for higher schools were carried out on the basis of "*the isolated and unsystematic decisions and laws which were approved under concrete historical conditions*" (Oppermann, 1969).

One striking fact was that universities in each federal state were established in different historical periods. They also had different legal statuses and mutual relations with their respective states. Some of them were public law corporations, others were state institutions, while the legal status of the rest were not even settled on in general. These concerns led to the unification the legal statuses of universities in all federal states.

During the post-war period, the federal states did not see these arrangements as necessary. At that time, their main worry was to deal with the problems of restoring and maintaining the normal functioning of higher education system which was destroyed by war and the Nazi's ideology. Comprehension of such necessity was designated as the beginning of a new stage of development – "*universal legislative regulation of a legal status of the higher school*" (Thyme, 1956, p. 27).

The border between the general laws and the federal laws regulating separate activity aspects of higher education institutes was washed away. In particular, it concerned the federal states having only one high school, (for example, Hamburg, Rhineland-Pfalz and Saarland). Ratification of laws appeared everywhere as considerably constrained in time and labor-consuming. Often, there were conflicts between the parliament and the government on the one hand, and universities, on the other hand. Universities of all the 11 federal states considered the new laws as a threat for their internal autonomy.

### **Conference of Education and Cult Ministers in April 1968**

One of the remarkable conferences to be held in this era was the Conference of Education and Cult Ministers (KMK). The KMK occurred in Germany in April 1968 and developed the "*principles of the modern rights for institutions of higher learning.*" It also echoed a universal consensus among the states regarding the prospects of higher education development. The participants of the conference planned a number of organizational measures to increase the effectiveness of institutions of higher learning under the conditions of educational expansion in Germany. The ministers aspired, on the one hand, to expand their powers of controlling the state higher schools and, on the other hand, to concentrate control levers in their hands to restrict traditional autonomies of the existing "*academic self-management*".

Restriction of university autonomy was perceived as a measure capable of limiting uncertainty, domesticity, corporate conservatism and resistance to reforms in universities which were reined by "*the 1000-year-old spirit of mustiness*" and undividedly ruled by department chiefs. The ministries took the measures as directed, first, on transforming faculties in base divisions of institutes which could command public funds. Secondly, education and cult ministers came to the agreement on the obligatory public announcement of competition on employment of vacant posts of professors as chairs. Up to that time, only special commissions had the right to select candidates for an ordinary professor. From this time, data about applicants for employment in vacant professor posts were sent to the Education and Cult Ministries. Besides, the conference also took decisions on granting rights to corresponding groups of employees and students to discuss and define a policy for higher school institutes in research work and teaching (KMK, 1968).

The main task for the reform consisted not only in transforming professors, but also unified the training process. The given phase of higher education reformation introduced general curricula and programmes at all German universities. This process first began in the federal state of Baden-Württemberg. In 1964, the Education and Cult Minister, Wilhelm Han created "*Department of Education Planning*" as part of the core structure of his ministry. Two years later, he made the decision on drawing up general plans for institutes of higher education which he perceived as separate structural divisions of the ministry. Universal planning of their activity, in his opinion,

should raise efficiency of their work. Though this idea is perceived today as quite obvious, it seemed absolutely a novel at that time.

### **Darendorf's plan**

In the middle of 1966, a working group under the presidency of Ralph Darendorf was charged with the sole duty to work out a general development plan for higher school institutes for the state Baden-Württemberg. After a year, the working group presented the results which soon became known as the "*Darendorf's plan*" ([Hochschulgesamtplan, 1967](#)). According to this plan, not only are scientific higher schools were included in the process of planning educational activities but engineering, pedagogical, the higher schools of arts, teacher's seminaries and the higher secondary special schools.

This approach remained a substantial innovation after having specified on the integrity of both the training process and tertiary education system Germany. However, the Darendorf's plan could not be carried out successfully out due to the following challenges. The state of Baden-Württemberg's parliament confirmed "*the general activity plan for higher school*" only in 1970; though, the theme on the development of education and science system was later put on the agenda within all German federation. In 1965, the Bundestag voted for the introduction of national training and education plan in addition to the scientific activity plan. The Commission for Planning Higher Education System under the presidency of Helmut Schelsky was also set up in 1967 ([Bartz, 2006](#)). Subsequently, other federal states like the North Rhine-Westphalia also established planning tools throughout the country ([Oehler, 2000](#)).

### **"Academyzation"**

In the sixties, the federal states considerably increased the sphere of higher school action. This began with what is termed as "*academyzation*"; the process of transforming pedagogical schools into institutes of higher education.

Firstly, pedagogical education was seen as the pivot for pedagogical staff training for national, real and grammar schools. "Academyzation" further caused prompt development of educational institutions, including seminaries, academies and pedagogical higher educational establishments. During this period, higher establishments for pedagogy in many federal states acquired the right of awarding a Doctor of Philosophy [PhD] or Doctor of Science [Sc.D.] degree as either qualification practically came with equal rights.

Secondly, higher schools for engineering which also represented the highest step in the system of professional education received a status rise. In 1968, prime ministers of federal states lifted, at last, these institutions to the level of higher educational institutions and for this purpose the concept "*special higher educational institution*" was founded.

Thirdly, the former "*higher vocational schools*" similarly received the status of special higher educational institution to offer training in areas of economy and social work. All these measures, including the establishment of new universities became the unique way of satisfying the ever-growing demands of entrants into the market of educational services.

### **Establishment of Research Universities and Multiproduct Higher Institutions**

Some attempts to transform universities into research universities or multiproduct higher institutions were undertaken in the process of reforming education. So, for example, University of Bielefeld was designed under the aegis of Helmut Schelsky as "*research university*", in which "*the independent right of science*" should be realized. The specificity of realizing this right consisted in the following domains: professors conducted lessons only in one of the two semesters of the academic year. The practical realization of this freedom appeared quite inconvenient.

Hans Leussink, who was the supporter of this recommendation from the Scientific Council in 1970 sought to implement this idea. Besides, this recommendation led to the merging of all existing educational institutions in a sort of a "*multiproduct higher school*". This finally integrated distinct functions of schools. Nevertheless, these concepts were not carried out.

### **Conclusion**

The epoch of these dynamic reforms in Germany's higher education have several lessons for Ukraine. Lessons from the 1960s to the 1970s illuminate the challenges and innovations in

educational expansion, sharp strengthening of state action and the end of regular ordinary professors. The Humboldt's university, smashed into small divisions ceased to exist despite attempts to resuscitate it in the 1960s by the Scientific Council.

One obvious point is that pragmatic reforms for German universities lacked a uniform base model or a uniform concept for successful implementation. From the middle of the 1960s, the landscape of German higher educational institutions represented an unbalanced stagnating system. This system was squeezed in rigid frameworks for legal and administrative directives. Generally, the German education system started changing in the 1980s and in early 1990s. As Ukraine looks at ways to successfully transform its higher education structure, cues from Germany's transformation will be germane foundation to begin.

### Conflicts of interest statement

The author declares the work has no conflicts of interest.

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RESEARCH ARTICLE



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## Organization of Students' Educational Control Activities in Ukrainian High School

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### **Abstract**

This article deals with the organization of control procedures in Ukrainian high school to assess students' learning outcomes. This paper carefully looks at the tasks, requirements, functions, types, forms and methods of control. Important types of control for educational purposes include preliminary, current, thematic and final control activities. These can be carried out in different forms; individual, group and frontal. Oral, written and standardized tests as control methods enjoy the widest popularity among Ukrainian high school teachers. This research proves that, control activities are only efficient if they cover all the educational material and are differentiated according to the level of students' knowledge.

**Keywords:** Control, Educational Activity, High School, Know-How, Knowledge, Skill, Student, Ukraine.

### **Introduction**

Control serves as one of the means to define quantitative and qualitative parameters of educational effectiveness. It is an integral part of the diagnostic process of students' learning outcomes (Weaver, 2006). The system of control organization in contemporary high school is characterized by certain deficiencies. Among these deficiencies include the application of forms and methods need for the evaluation of students' learning outcomes without taking into account pedagogical aims.

They also consist of a weak system for realizing of students' learning function when they face their mistakes alone without teachers' assistance and underestimation of students' learning achievements as the results of their diligence in educational activity. In some circumstances, these deficits entail the registration of only the lower levels of gained knowledge [recognition, reproduction, apprehension] and not paying sufficient attention to reconstructive and creative levels of learning. Others also include, the absence of orientation to in-depth knowledge, the tendency to accumulate positive marks without taking into account the cognitive abilities of students. Despite a great number of researches in this area, this problem is still topical nowadays.

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### Knowledge Control as a Concept

Control involves the detection, measurement and assessment of students' educational activity outcomes. The procedure for detecting and measuring students' outcome is also called "check." Apart from check, control involves assessment [as a process] and mark [as a result] of check (Vasiuk, & Maidaniuk, 2009).

Knowledge control, as an organizational feedback scheme and the means to manage educational process occupies an important place in higher educational establishments. It helps to define the initial level of students' knowledge and provides information about their learning progress in the course of studying. Some of the forms and methods of control change in conjunction with high school requirements, however, its main essence – to know how successful the process of mastering learning materials – remains unchanged. In view of that, control is defined by the nature discipline that is studied.

The indicators of students' knowledge control serve as the only basis for judging their learning outcomes, as well as solving such important questions on transfer to the next academic year, awarding of a scholarship, graduation from a higher educational establishment and getting a diploma. Data on the results of students' knowledge control are used to assess not only the work of students and teachers, but the work of other academic groups, courses, faculties and higher educational establishments as a whole.

### System of Control for Training Specialists

The system of quality control for training specialists has the following objectives;

- To define the level of formation and development of key students' proficiencies.
- To elicit, check and assess the level of acquired knowledge and skills in order to determine how well students have mastered learning materials at all stages of education.
- To compare the actual results of educational activities to expected goals.
- To evaluate correspondence among required topics in national standards for a particular area of study or specialty.
- To encourage regular students' self-work and cognitive activity.
- To detect and develop students' creative abilities.
- To increase students' interest in learning educational materials.
- To evaluate the effectiveness of students' self-work, their ability to work with educational references and other literature.
- To elicit the best experience and work out methods to increase the quality of studying by means of implementing innovative technologies (Auzina, Holub, & Vozna, 2002; Oderii, 1995; Yahodzinskyi, Muromtseva, & Ivanova, 1997).

Control in high school should be organized in accordance with a number of requirements; it has to be subordinated to a set of educational goals. It also has to show concrete and objective results for knowledge mastering [*skills, know-how, creative activity, experience, emotionally evaluative attitude etc.*] and objective methods of analysis. Certainly, control, which results in a certain mark, has to be systematic, educational, diagnostic, stimulating, developmental, manageable, evaluative, extensive, objective and open. (Kuzminskyi, 2005; Vyhovska, 2011).

Control also helps educational institutions to perform complex roles like monitoring, stimulation, diagnostic, disciplinary, and administrative functions (Vasiuk, & Maidaniuk, 2009). If teachers in higher educational establishments in Ukraine appreciate the role control performs and take them into account, they can prepare and organize control activities in a didactically grounded and methodologically appropriate methods. Every teacher should develop a system of control activities which will ensure the realization of all control functions.

### Types of Control for Higher Educational Establishment

Results from studies on educational control show evidence of different types of control. Preliminary control is used as a premise for successful planning and management of educational processes. Its aim is to show the general level of students' attainment in a particular subject, in order to map out further organization of students' educational activity. Preliminary control [*check and assessment of the residual knowledge*] may also be carried out some time after a final exam in a discipline either to evaluate in-depth knowledge or to define students' general performance.

Current control of knowledge is an organic part of the whole pedagogical process; it serves to elicit the level of educational material perception [*mastering*]. It is carried out during routine educational activities and manifests itself in teachers' systematic observation on students' work in every lesson. It is aimed at getting prompt objective information about students' level of knowledge and quality of their work in class. It also helps in solving management problems regarding the educational process, which is sometimes possible only on the grounds of current control data.

Threshold (thematic, module, block) control of knowledge indicates the quality of learning particular themes like chapters, topics, and students' psychological potentials. Threshold control allows teachers to check mastering of the acquired knowledge within a longer period of time and it covers a considerable scope of modules. It can be conducted in an oral or written form, individually or in groups.

**Table 1.** Types of Control

<b>Type</b>	<b>Purpose</b>
Preliminary	<i>Aimed at diagnostics before learning a new module or topic. This is done at the beginning of the semester</i>
Current	<i>Show the quality of students' learning in class</i>
Threshold	<i>Find out how well students have learnt a certain topic or unit and how effectively they have used reference literature</i>
Final	<i>Define students' level of educational attainment in specific academic disciplines</i>

Adapted from: Oderii (1995); Yahodzinskyi, Muromtseva, and Ivanova (1997).

Final control involves checking the level of students' knowledge and skills obtained during a semester, an academic year or the whole period of studying in a higher educational establishment. The system and the structure of students' knowledge are determined in the course of final control. It includes semester, end-of-year and state exams as well as tests before exams. The main goal of exams is to estimate the real content of students' knowledge in terms of its extent, quality and ability to apply it in practical activities. Despite the results of control procedures during a semester, exam as a final type of control should be obligatory for all students.

### **Forms and Systems of Control for Higher Educational Establishment**

Control is carried out in different forms: individual, group and frontal. Presently, Ukrainian educational system in high school is based on the main principles of European Credit Transfer and Accumulation System [ECTS]. ECTS form of rating assessment offers a system which increases the role of current and final control and makes it systematic. Rating assessment provides integral evaluation of students' results. It combines quantitative evaluation of results and provides qualitative indexes for students. Consequently, it enables them take into account their achievements at every stage of knowledge mastering to make their self-work more interesting. It is convenient in terms of transferring national mark into ECTS scale and it encourages students' self-control development.

System approach involves complex application of the methods to check students' knowledge, skills and know-how. One of the most important control methods is observation of students' educational activity. It allows teachers to get the idea of students' cognitive abilities, their attitude to knowledge mastering, the level of their self-preparation, etc.

Oral test is widely used in the traditional system of assessing students' learning outcomes, check and assessment. It involves students' questioning on the content of educational material and assessment of their answers. According to its nature, oral test can be individual and frontal, simple and complex (Yanchenko, 2008).

Written test is one of the most important forms of students' knowledge, skills and know-how control. This form of control is believed to be time-efficient in terms of the simultaneous inclusion of all group members during one educational period, as well as from the point of view of data handling and getting the results. It is worth mentioning that the Similarity of students' works allows teachers to set identical demands to everybody, which increases the objectivity of studying

results evaluation. Using this form, we can quickly and simultaneously check the level of knowledge mastering by all students, define the areas for individual work with every student, carry out the necessary analysis of the process of knowledge mastering and then draw corresponding methodological conclusions.

The main drawback of written tests is seen in the considerably long period of educational time it requires to conduct such a check. In regards to this, written tests should be designed to be shorter. Hence, before teachers get ready to conduct control activities, they should recognize the discrepancies that may influence the quality students' expected outcome. The main prerequisite for the choice of control forms is that, they have to correspond to the knowledge, skills and know-how which are being tested. All the aforementioned methods of control have one common drawback – every person who tests and assesses students proceeds from their own subjective impressions, intuition and experience. A certain example or standard of the correct and consistent execution of actions is required. When there is a particular model, checking becomes simpler and more automated.

Some of the above mentioned problems can be solved by using standardized tests, however, it is widely accepted that they also have their shortcomings. In Ukraine, tests are used at the final stage of professional training to check and assess the level of students' mastering of chosen academic discipline. Such tests are applied to determine graduates' qualifications and qualification tests are usually complex.

Students have to not only prove that they possess some knowledge, skills and know-how, but also demonstrate that they are capable of making right decisions. Yet, testing cannot entirely substitute all forms of oral and written control. The skills in special terminology, the ability to produce logical sentences, to express ideas in a comprehensible and coherent way can only be reliably checked with the help of oral control forms (e.g. during seminars). The level of practical skills formation is assessed in practical lessons or during different kinds of educational and professional practice.

Due to rapid technical development at the beginning of the 21st century, it is becoming more and more popular to organize and control students' educational activities with the help of information technologies. Information technologies change the character of students' learning. They brisk up students' self-work through different electronic instruments which are designed for educational purposes. That is why organization and control of educational process with the help of personal computers, the Internet, electronic teaching aids and distance learning is getting more popular among Ukrainian higher educational establishments. Teachers can control students using e-mails, forums or even chats. These had made it possible to conduct control on students' activities round-the-clock.

### **Conclusion**

Accordingly, the main requirement for the organization of effective control for students' learning outcomes in Ukrainian higher educational establishment should be systematic in character. Control activities should cover all the educational materials and should have being differentiated according to the level of students' knowledge. Students should be informed about the content, methods, forms and time of control activities. They should know the results of the test, analyze their mistake and get the proper feedback.

### **Conflicts of Interest**

The author declares the work has no conflicts of interest.

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RESEARCH ARTICLE



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## **Short Communication**

### **Foreign Languages Training in Ukraine: Is teacher training having enough?**

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#### **Abstract**

To ensure effective educational activity, it is necessary to take into account the common European and national tendencies of social development. These factors form the basis for modifications in educational pathways nowadays. This article presents the main modern priorities in the training system of trainee teachers. It has been proven that the use of foreign languages in the training system of trainee teachers helps them to accumulate considerable educational and potential development in the level of general and professional culture. It also affects their thinking culture, and subsequent communication with the globalized information-technological society. It provides them the skills to find their own place in the context of general and specific growth within the modern of many cultures.

**Keywords:** Foreign Language, Professional Training System, Trainee Teachers, Ukraine.

#### **Short Communication**

Foreign language is important to both teaching and learning globally. “*Foreign language learning and teaching refer to the teaching or learning of a non native language outside of the environment where it is commonly spoken*” (Moeller, & Catalano, 2015, p. 327). The Modern tendencies seen in the popularization of foreign languages, alongside with their studying peculiarities offer new claims to professional graduate training in education.

The most meaningful ones include; deep professional knowledge, effectively application of information, sociability, readiness for self-perfection and creativity. Modern specialists’ competitiveness depends not only on the high qualification in their professional circles, but also on their readiness to solve professional tasks under the conditions of foreign language communication. Since the academic discipline - “*foreign language*” is either integrated or interdisciplinary according to its purpose and its subject matter respectively, it has to promote students’ educational outlook. It also widens trainee specialists’ personal socialization and their

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preparation for life under the conditions of multinational and multicultural spheres (Kitaigorodskaya, 1986).

Currently, foreign language communication has become an essential component of specialists' future professional job. However, the potential of foreign language in the training system of future teachers has not been studied sufficiently among the Ukrainian people. So, the aim of this article is to enlighten the importance of foreign languages as a channel to attract the Ukrainian people to civilized progress. It also discusses the possible benefits of foreign languages in teacher education in Ukraine.

Teachers' training in domestic higher educational establishments is performed in accordance with current educational qualifying requirements and foreign language specialists training curricula. As it is known, the aim of foreign language learning in higher educational pedagogical establishments is to enable trainee teachers attain the level of language proficiency sufficient for practical foreign language usage in their future professional work (Nikolaieva, 2002).

An analysis of the Ukrainian higher educational establishments for teacher training shows that they customarily provide courses in foreign languages either in one specialty [*Bachelor*] or in joined specialties [*Master*]. The structure of higher educational establishments includes: Departments offering courses in intensive foreign languages learning, Faculty of the English language, Faculty of the German language, Faculty of the French language, Faculty of the Spanish language, Faculty of Postgraduate training, Preparatory Department, etc. The departments of Pedagogy, Psychology and Foreign Language Teaching Methodology often provide psychological, pedagogical, methodological and practical training for trainee foreign language teachers according to the requirements stated in the National Standards for Pedagogical Education. Postgraduate advanced professional education for foreign language teachers' training involves a lifelong professional training. Such training involves deepening, widening and renewing of professional knowledge and skills on the grounds of earlier obtained professional training and personal practical experience.

Also, the level of graduates' professional training corresponds to the requirements of the State Standards. Specialists in foreign languages are trained for the following educational levels: primary education, basic and complete general secondary education, and basic and complete higher education. Graduates of higher educational establishments are respectively awarded qualifications of primary school teachers, secondary school teachers, and after obtaining the Master's degree – higher educational establishment teachers.

Taking into account the necessity to prepare foreign language teachers to work at basic ungraded secondary schools and to ensure their competitiveness at the labor market, some higher educational establishments provide trainee teachers' training in dual specialties. Specialties are integrated, taking into consideration the affinity of areas of study. This consideration is reflected in the content of academic disciplines, kinds of pedagogical activities in the secondary school, and out-of-school educational institutions. Others include; the amount of time devoted to studying of the corresponding academic disciplines such as: Language and Literature [two foreign languages], Foreign Language and Practical Psychology and Foreign Language and Ukrainian [Language and Literature].

Professional training in higher educational establishments is directed to the arrangement of preconditions, under which students can acquire theoretical knowledge on the specialty "*foreign language*" and develop practical skills necessary for future professional skills in teaching their chosen foreign language. The content of the professional training is therefore determined by:

- *Fundamental academic disciplines of the specialty: Introduction to Linguistics, Introduction to Literary Criticism, General Linguistics, Latin, History of Languages, History of Foreign Literature, Basics of Computer Studies, etc.;*

- *Academic disciplines for professional training: Theoretical Grammar, Theoretical Phonetics, Lexicology, Stylistics, Theory and Practice of Translation, Linguistic and Cultural Studies, History, Geography, Culture of the Country, Practice of Oral and Written Speech, etc.;*

- *Academic disciplines on the methods of the corresponding foreign language teaching: Methodology of Foreign Language Teaching in Primary and Secondary Schools, Methodology of Foreign Language Teaching in High School, etc.*

One of the orientations of most foreign language programs in higher educational establishments is to direct training towards students' specialty and their future professional work (Bakaieva, Borysenko, & Zuienko, 2005). In accordance with the radical changes which are taking

place in the national higher educational system of Ukraine, foreign language curricula have been adapted develop students' professional language competence ([Kharkiv Humanitarian Pedagogical Academy, 2015](#)).

The State National Program, "Education" [Ukraine in XXIst century] stipulates the formation of national language personality that possesses the gift of eloquence – oral and written, who can speak fluently and choose language units in accordance with the purpose of communication. This shall be done on the stages of the speech perception and production in different spheres, forms and styles of speech to ensure the development of an overall speech competence ([The National program, 1994](#)).

In the context of this paper, competence is operationally used as 'linguistic competence', which includes; the knowledge of language, or lexical material in particular, as well as speech skills necessary for training future teachers. Linguistic competence is very crucial for teacher training in Ukraine. Following Ukraine's membership into the Council of Europe, it is vital that the Ukrainian educational standards have to be consistent with the Common European Educational Standards. The Council of Europe suggests and actively promotes the conception of European education based on the idea of "*the Common European Home*". Its ideologists claim that Europe is a society with common spiritual roots and values. Consequently, European outlook has to be based on the knowledge of European heritage and common historical development during two thousand years ([Malcolm, 1989](#)).

Language is considered to be the leading instrument for the consolidation of nations. As for the general approaches to the language problem in Europe, the strategic orientation of the language policy on the continent is multilingualism ([Fiedler, 2010](#)). In prospect, it suggests that every European citizen should know three and more languages. Under these conditions, both foreign language teachers and the academic discipline of training such professionals should be in the foreground in all types of educational institutions in Ukraine.

The European style of language education supposes two types of the language competence; linguistic and communicative skills. As it is known, linguistics is a science that studies languages. Linguistic competence is an ability to produce grammatically accurate forms and syntactic structures, as well as to understand vocabulary frames and use them the same way as they are used by native speakers. Linguistic competence is the main constituent part of communicative competence, as communication is impossible without knowledge of words and grammar rules ([Rowe, & Levine, 2015](#)).

Training future teachers in Ukraine should also focus on the notion of "*personal communicative competence*." This will aid their ability to use the language fluently and naturally in the course of their future professional communication. Thus, it will help them to convey and share ideas in accordance with authentic communicative situation. Such forms of training will positively influence their communicative content line, which is based on speech activity like listening, reading, speaking and writing skills. All these types of speech activity are equally valuable and important in the process of future teachers' training in Ukraine.

Another area of need is training on foreign language translation for trainee teachers. Translation is one of the significant means to develop the culture of professional communication. Language translation can be demanding, as it demands a translator to choose appropriately, words or a syntactic structure to convey the idea in Ukrainian or in a foreign language. As foreign language is closely related to modern life, foreign language teachers in Ukraine have to prepare students [i.e. trainee teachers], not only in terms of vocabulary and grammar, but also teach them to use foreign languages in practical ways such as; technology (working on a computer), science (writing articles or monographs), personal and other professional domains. The analysis of the scientific and pedagogical literature, personal experience and senior teachers' experiences proves the necessity to train trainee specialists in foreign languages. It is claimed that, the aim of the education is not just the knowledge of a foreign language, but the ability to use it ([Bakhtin, 1979](#); [Kharkiv Humanitarian Pedagogical Academy, 2015](#); [Nikolaieva, 2002](#); [Passov, 1998](#)).

Consequently, the national standards for foreign languages teaching and learning incorporate such modern approaches and methods into teaching. These standards encourage conditions for educational humanization, which leads trainee teachers to encounter intercultural interaction. In that context, there appears a potential challenge of creating a multicultural personality. In response, it is high time teacher training institutions in Ukraine train future teachers who can

capture and understand cultural peculiarities of other nations. This is the premise for successful interaction and mutual penetration of different cultures as learning and teaching goes on.

In addition, trainee teachers in the field of foreign languages will need to interpret education from the position of both scientific and cultural reciprocities. These fundamental ideas describing the dialogue of cultures were advanced by Bakhtin (1979), and Bibler (1990). According to Passov (1998), the concept of integrated learning among corresponding countries of different languages and cultures forms an important instrument for generalizing the reality cognition of intercultural communication and interaction. In effect, the art of mastering foreign languages as an inseparable part of teachers' contact with foreign cultures builds a confident learning perception.

In conclusion, foreign languages training in Ukraine is very important to promote the development of Ukraine in the global community. Teacher training institutions need to prepare students to ensure their harmonious interaction with the globalized information-technological society.

### **Conflicts of Interest**

The author declares the work has no conflicts of interest.

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