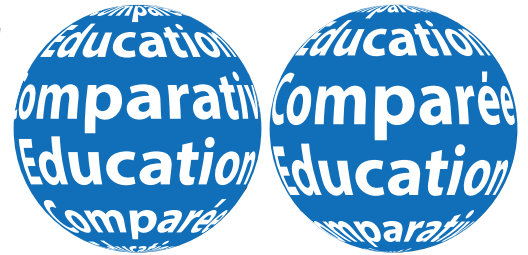


Global Comparative Education

Journal of the

World Council of
Comparative
Education Societies
(WCCES)



Éducation Comparée Mondiale:

Revue du Conseil Mondial des Associations D'Éducation Comparée

Educación Comparada Global:

Revista del Consejo Mundial de Sociedades de Educación Comparada

Всеобщее Сравнительное Образование

Журнал Всемирного Совета Сообществ Сравнительного Образования

全球比较教育

世界比较教育学会联合会会刊

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ABOUT THE JOURNAL

حول المجلة, 关于期刊, A propos du journal, O ЖУРНАЛЕ, Sobre la Revista

The *Global Comparative Education* is an open-access, peer-reviewed journal that aims to contribute to the comparative education literature by creating spaces to present critical analyses of the differences and commonalities within education worldwide (formal, informal, and non-formal), with an explicit focus on increasing and widening social justice globally, keeping in mind that for instance UNESCO to which WCCES is affiliated declared education a human right more than half a century ago. The Journal welcomes article submissions in the six UN languages: Arabic, Chinese, English, French, Russian, and Spanish.

The Journal seeks articles that are diverse in numerous aspects and perspectives including, but not limited to: theories, methodologies and methods, pedagogical practices/tools/resources, policies, and scope/nature of comparison (e.g., geographically, culturally, linguistically, economically, historically, and population (gender identity, race, ethnicity, sexual orientation)) and any other grounds of differentiation as they relate to educational processes, especially with comparative perspectives. Special focus will be given to providing space for historically under-represented areas of comparative education and transfers of knowledge (e.g., Global South to Global North). *Global Comparative Education* is the official journal of the World Council of Comparative Education Societies (WCCES).

حول المجلة

التعليم المقارن العالمي هو مجلة مفتوحة الوصول إليها من قبل الأقران التي تهدف إلى المساهمة في أدب التعليم المقارن من خلال خلق مساحات لتقديم تحليلات نقدية للاختلافات الرسمية وغير الرسمية، مع تركيز صريح على زيادة العدالة الاجتماعية وتوسيع نطاقها على الصعيد العالمي، مع الأخذ في الاعتبار أن (و القواسم المشتركة في التعليم في جميع أنحاء العالم وترحب المجلة. المقارنين أعلنت أن التعليم حق من حقوق الإنسان منذ أكثر من نصف قرن التعليم و التربية مجتمعات مختلف العالمي اليونسكو التي ينتمي إليها المجلس بالرسائل المقدمة باللغات الست للأمم المتحدة: العربية، الصينية، الإنجليزية، الفرنسية، الروسية والإسبانية

الموارد والسياسات / وتسعى المجلة إلى مقالات متنوعة في جوانب ووجهات نظر عديدة منها على سبيل المثال: النظريات والمنهجيات والأساليب والممارسات التربوية / الأدوات وأية أسس أخرى للتمايز من حيث (والنطاقات / طبيعة المقارنة على سبيل المثال: جغرافيا، وثقافيا، لغويا، اقتصاديا، تاريخيا، وديمقراطيا (الهوية الجنسية، العرق، التوجه الجنسي . وسينصب تركيز خاص على توفير حيز للمجالات ذات التمثيل الناقص في مجال التعليم المقارن ونقل المعارف (مثل الجنوب. صلتها بالمنهج التعليمية، وخاصة مع المنظورات المقارنة التعليم المقارن العالمي هو المجلة الرسمية للمجلس العالمي لجمعيات التربية المقارنين (العالمي إلى الشمال العالمي

关于期刊

《全球比较教育》是一本公开、经过同行评论的杂志，目标是通过呈现对世界教（正式的、非正式的、和不正式的）异同点的批判分析，促进比较教育文献的发展。特别是由于比如 WCCES 附属其下的联合国教科文组织（UNESCO）在半个世纪之前就曾宣告过人权，所以本期刊尤其会着重分析日益严重、影响范围扩大的全球性社会公平问题。本杂志欢迎以下六种联合国语言提交的文章：阿拉伯语、中文、英语、法语、俄罗斯语、西班牙语。

本杂志寻求在诸多方面与视角多样化的文章，包括但不限于：理论、方法论、教学法的实践/工具/资源、政策、比较的视野/本质（比如，地理地、文化地、语言学地、经济地、历史地、人口地（性别身份、民族、人种、性取向），以及与教育过程，特

别是比较教育视角之下的问题有关的其他差异之处。特别关注历史上被忽视地区的比较教育和知识交换（比如，南方世界和北方世界）。《全球比较教育》是世界比较教育学会联合会的官方杂志。

A PROPOS DE LA REVUE

Éducation Comparée Mondiale est une revue accessible et évaluée par les pairs ayant pour but de contribuer à la littérature relative à l'éducation comparée en offrant des espaces pour présenter des analyses critiques des différences et des similitudes au sein de l'éducation (formelle, informelle et non formelle) dans le monde entier, en mettant un accent explicite sur le renforcement et l'élargissement de la justice sociale à l'échelle mondiale, tout en mettant l'accent sur le renforcement et l'élargissement de la justice sociale à l'échelle mondiale, et en gardant à l'esprit que, par exemple, l'UNESCO à laquelle WCCES est affilié, a déclaré l'éducation comme un droit de l'homme il y a plus d'un demi-siècle. La Revue accepte des articles présentés dans les six langues de l'ONU: l'arabe, le chinois, l'anglais, le français, le russe et l'espagnol.

La Revue recherche des articles variés dans de nombreux aspects et domaines, y compris, mais sans se limiter aux: théories, méthodologies et méthodes, pratiques / outils / ressources pédagogiques, politiques et la portée / la nature de la comparaison (par exemple, sur le plan géographique, culturel, linguistique, économique, historique, et démographique (identité de genre, race, origine ethnique, orientation sexuelle)) et tous autres sources/problématiques/questions de différenciation en ce qui concerne les processus éducatifs, en particulier avec des perspectives comparatives. Une attention particulière est accordée aux régions historiquement sous-représentées en éducation comparée et aux transferts de connaissances (par exemple les pays du Sud et du Nord). Education Comparée Mondiale est la revue officielle du Conseil Mondial des Associations d'Éducation Comparée (CMEAC-WCCES).

О ЖУРНАЛЕ

Всемирное Сравнительное Образование - это рецензируемый журнал в свободном доступе, целью которого является вклад в литературу по теме сравнительного образования, путем предоставления критических анализов об общих и отличительных чертах в образовании в мировом масштабе (в форматах обязательного и дополнительного образования, а так же видов образования вне определенного образца), с акцентом на расширение и увеличение социальной справедливости в глобальном масштабе, имея в виду, что, например, ЮНЕСКО, к которой относится WCCES, объявила образование правом человека более полувека назад. Журнал приветствует публикации статей на шести языках ООН: арабском, китайском, английском, французском, русском и испанском.

Журнал ищет статьи, которые разнообразны по многим аспектам и взглядам, включая, но не ограничиваясь следующими темами: теории, методологии и методы; педагогические методики, инструменты и ресурсы; законопроекты; различные области и сферы для сравнительных анализов (например, географической-, культурной-, лингвистической-, экономической-, исторической направленности, а так же вопросы народонаселения, такие как гендерные и расовые различия, этническая

принадлежность, сексуальная ориентация), а также любые другие основания дифференциации, связанные с образовательными процессами, особенно со сравнительными перспективами. Особое внимание будет уделяться областям, исторически недопредставленным в сравнительном образовании и вопросам передачи знаний (например, с Юга на Север в глобальном понимании). *Всемирное Сравнительное Образование* является официальным журналом Всемирного Совета Обществ Сравнительного Образования (WCCES).

SOBRE LA REVISTA

Educación Comparada Global es una revista de acceso abierto, de revisión por pares cuyo objetivo es contribuir a la literatura de la educación comparada mediante la creación de espacios para presentar análisis críticos de las diferencias y de los aspectos comunes dentro de la educación en todo el mundo (formal, informal, y no formal), con un enfoque explícito en incrementar y extender la justicia social globalmente, teniendo en consideración por ejemplo que para UNESCO, de quién el WCCES es afiliado, ha declarado a la educación como un bien social hace más de medio siglo. La revista da la bienvenida a la presentación de artículos en los seis idiomas de la ONU: Árabe, Chino, Inglés, Francés, Ruso y Español.

La revista busca artículos que sean diversos en numerosos aspectos y perspectivas, incluyendo pero no limitándose: teorías, metodologías y métodos, prácticas/herramientas/recursos pedagógicos, políticas, y el alcance/la naturaleza de la comparación (p.ej., geográfica, cultural, lingüística, económica, histórica y de población (identidad de género, raza, origen étnico, orientación sexual)) y cualquier otro campo de diferenciación en relación a los campos educativos, especialmente con perspectiva comparada. Se prestará especial atención en proveer espacio para aquellas áreas históricamente sub representadas en educación comparada y en la transferencia de conocimientos (p. Ej., Sur Global hacia Norte Global). Educación Comparada Global es la Revista Oficial del Consejo Mundial de Sociedades de Educación Comparada (WCCES).

Journal Cover Design by: Greg William Misiaszek

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Editorial: Call for Submissions in the Six UN languages

N'Dri T. Assié-Lumumba
Cornell University, USA

We are delighted to welcome the long-awaited volume 3 nos.1-2 of *Global Comparative Education: Journal of the WCCES*, our peer-reviewed academic periodical. As communicated in prior announcements and reiterated in the first issue that was published in 2017, this journal was scheduled to appear twice annually, in March and September. It was also stated earlier that, as part of our new innovations in publication the journal would publish articles in any of the six official languages of the United Nations, namely: Arabic, Chinese, English, French, Russian, and Spanish. The rationale for a WCCES multi-lingual publication of this journal, the *World Voices Nexus: the WCCES Chronicle* and the new WCCES-Brill/Sense book series was a reflection of my commitment for inclusiveness and diverse possibilities for publishing to better cater to the needs of broader comparative education community. Furthermore, it was also expected to tap into the breadth of expertise in WCCES in these languages.

In order to fulfil such a commitment, it is important to have at least two of the six languages in each issue. However, each of the articles published in any of these languages must be submitted to the same rigorous review process before they are accepted. Even invited papers must be submitted to the same strict review for quality assurance in terms of academic rigor and suitability for a comparative education journal. It is worth noting that the first two issues were successful in this regard. However, for this third issue, having to decline submissions that would have fulfilled the language diversity requirement but not the stringent quality requisite, led to delays. Thus, while my preference and commitment are to have the issues come out regularly, with at least one article in one of the other five UN languages besides English, it was necessary to wait until we finally met all our requirements, leaving us with five articles including a profile.

I am hereby appealing to the entire comparative education community, the leadership and other members of the constituent societies, and members of the different standing committees to submit and encourage members of these societies and various networks, to participate and submit articles in order to have diverse, vibrant and sustainable scholarly publication outlets offered by WCCES, including this journal.

This issue includes the following exciting articles: “Toward a Theory of Knowledge Socialism: Cognitive Capitalism and the Fourth Knowledge Revolution” by Michael A. Peters, “Cultural Effects on Teacher Agency towards National Curriculum Reform with Enhanced Autonomy in South Korea” by Mina Min, “Educating Children about Humane Values: A Case Study in Lahore, Pakistan” by Sunnya Khan and “Culture et Enseignement dans la Civilisation Arabo-musulmane” by Aïcha Maherzi. Included in the issue is the article, “Profile of a Comparative and International Education Leader: Carlos A. Torres” by Deborah Shin and Yuqing Hou. It also contains a review

by Nigel Bagnall of a book entitled "Global perspectives on international student experiences in higher education" edited by Krishna Bista, Routledge Research in Higher Education, 2019.

As always, I wish to extend much gratitude to the authors of the articles who made significant contributions to this issue, with a special note of appreciation to those whose articles were accepted earlier but publication had to be delayed while waiting for other submissions to be recommended for publication. We also want to thank those whose submissions were not accepted for publication in this issue and encourage them to strengthen their papers and resubmit them. I am most grateful to the entire editorial team, especially Eve Coxon, Co-Editor & Book Review Editor; W. James Jacob, Associate Editor in charge of the Profiles and Copyediting of the submissions in English; and Aïcha Maherzi, Associate Editor responsible for Copyediting of the submission in French. I also want to thank the anonymous reviewers of the submissions in all the languages, including those who reviewed articles that are not published in this issue.

My special gratitude goes to Greg William Misiaszek, the Managing Editor Team and the dynamic Language-Specific Management Members for translating the abstracts in the UN languages. Thanks to their hard work and true dedication, even when we have only a couple of the six languages represented in the articles, we have been fulfilling our commitment to the six UN languages through the abstracts.

It is a great honor for me to continue to serve as the Editor of the *Global Comparative Education: Journal of the WCCES*, in my second term as President of WCCES. I appreciate any feedback and suggestions as we continue to strive to achieve and sustain the status of a top and relevant journal. Happy reading!

Toward a Theory of Knowledge Socialism: Cognitive Capitalism and the Fourth Knowledge Revolution

Michael A. Peters

Beijing Normal University, China

This paper takes a retrospective view of a body of work under the title ‘knowledge socialism’ (KS) to review the literature on the rise of peer production and, in particular, the emergence of different modes of openness concerning collegiality, collaboration, and collective intelligence that have become increasingly evident in ‘cognitive capitalism’, that together illustrate aspects of the Fourth Knowledge Revolution. The paper theorises ‘knowledge socialism’ through this review, contrasting it to knowledge capitalism and the neoliberal knowledge economy. I adopt the discourse of ‘cognitive capitalism’ based on Marx’s ‘Fragment of Machines’ that developed with the autonomist school in Italy under Negri, Virno and Lazzarato, an approach in radical political economy I have attempted to develop marrying Marx and Foucault in the field of education by focusing on the question of digital labour. In my discussion I draw attention to features of knowledge (or algorithmic) capitalism in ‘the epoch of digital reason’ and, in particular, examine the critical relationship between ‘deep learning’ and what is called ‘technological unemployment’. The infinite substitution of labour is the driving motif of the transformation of labour in the shift from industrial to postindustrial forms of capitalism with its waves of automation based on robotization. ‘Deep learning’ is the key process in the transformation of knowledge into data and information, and; machine learning can augment and replace human knowledge production systems with algorithms, large data sets and data-intensive science. The infinite substitution principle of labour applied to mechanised assembly plants and later 24/7 ‘intelligent’ manufacturing, duplicates the process for mental labour especially in the digital realm. Automation and the generalised ‘decline of labour’ pose huge questions for education, labor politics, unions, and welfare. Capital no longer needs labour in the way it required the mass of unskilled labour, even at offshore cheap rates, that characterised early stages of industrial capitalism or its globalisation in the post-war period as jobs migrated East. Second-wave automation of the service sector began in the 1980s when white collar office jobs began disappearing and the ATM machine was first introduced in 1969 as part of the early process of financialization. The digitisation of finance led to the automation of equity markets and the phenomenon of high-frequency trading represented a third-wave automation associated with global finance capitalism in the early 2000s. The fourth-wave automation of knowledge and research developed

quickly with the growth of 'platform capitalism,' the rise of algorithmic-based knowledge capitalism and the rise of global search engines, big publishing and the metrics industries. Deep learning as an aspect of AI is the latest phase of automation that has the capacity to automate and augment human cognition, knowledge and research. Cognitive capitalism offers an alternative and opposing account of knowledge economy, and the notion of 'creative labour' provides an interesting alternative description to 'human capital'. In this connection, I explore the wider philosophy and political economy of openness and 'open knowledge production' with a strong emphasis on 'radical openness' and new forms of 'co(labor)ation.' In the era of 5G networks, there are still opportunities for full public knowledge, learning and publishing platforms that are, if not owned or subsidised by the State, at least strongly regulated in the interests of public good science, although it is not clear how long this will remain the case.

Keywords: knowledge socialism, peer production, cognitive capitalism, openness, collaboration.

لمراجعة الأدبيات حول صعود إنتاج الأقران، ولا سيما ظهور أنماط مختلفة من الانفتاح فيما يتعلق بالرمالة والتعاون (KS) " والتعاون الجماعي الذكاء الذي أصبح واضحًا بشكل متزايد في "الرأسمالية المعرفية" ، والتي توضح مفا جوانب ثورة المعرفة الرابعة. تتناول النظرية "اشتراكية المعرفة" من خلال هذا الاستعراض، مقارنةً برأسمالية المعرفة واقتصاد المعرفة النيو ليبرالي. أتبنى خطاب "شظية الآلات" الذي وضعه ماركس ومقره "جزء من الآلات" الذي طورته مدرسة الحكم الذاتي في إيطاليا في ظل نيجري وفيرنو ولازاراتو، وهو نهج في الاقتصاد السياسي الراديكالي حاولت أن أطور زواج ماريكس وفوكو في مجال التعليم من خلال التركيز على مسألة العمل الرقمي. في مناقشتي، أود أن ألفت الانتباه إلى ميزات المعرفة (أو الخوارزمية) للرأسمالية في "عصر العقل الرقمي"، وعلى وجه الخصوص، دراسة العلاقة الحرجة بين "التعلم العميق" وما يسمى "البطالة التكنولوجية". الاستبدال اللانهائي للعمل هو الدافع وراء تحول العمل في التحول من الأشكال الصناعية إلى أشكال ما بعد الصناعة للرأسمالية في موجاتها من الأتمتة القائمة على الروبوت. "التعلم العميق" هو العملية الأساسية في تحويل المعرفة إلى بيانات ومعلومات، ويمكن للتعليم الآلي زيادة أنظمة إنتاج المعرفة البشرية واستبدالها بالخوارزميات ومجموعات البيانات الضخمة والعلوم الكثيفة والاستخدام للبيانات. كما أن مبدأ الإحلال اللانهائي للعمل المطبق على مصانع التجميع الآلية والتصنيع "الذكي" في وقت لاحق، يكرر عملية العمل العقلي وخاصة في المجال الرقمي. يطرح الأتمتة و "تراجع العمل" المعمم أسئلة ضخمة للتعليم وسياسة العمل والنقابات والرفاهية. لم يعد رأس المال بحاجة إلى العمالة بالطريقة التي تتطلبها كتلة من العمالة غير الماهرة، حتى بمعدلات رخيصة في الخارج، والتي ميزت المراحل المبكرة من الرأسمالية الصناعية أو عولمتها في فترة ما بعد الحرب حيث هاجرت الوظائف شرقًا. بدأت أتمتة الموجة الثانية لقطاع الخدمات في الثمانينيات من القرن الماضي عندما بدأت وظائف المكاتب ذات الياقات البيضاء تختفي وتم تقديم ماكينة الصراف الآلي لأول مرة في عام 1969 كجزء من العملية المالية المبكرة. أدت رقمته التمويل إلى أتمتة أسواق الأسهم ، وكانت ظاهرة التداول عالي التردد تمثل أتمتة الموجة الثالثة المرتبطة برأسمالية التمويل العالمية في أوائل العقد الأول من القرن العشرين. تطورت أتمتة الموجة الرابعة للمعرفة والبحث بسرعة مع نمو "رأسمالية المنصة"، ونشوء رأسمالية المعرفة القائمة على حسابي وصعود محركات البحث العالمية، والنشر الكبير وصناعات المقاييس. التعلم العميق كجانب من جوانب الذكاء الاصطناعي هو آخر مرحلة من الأتمتة التي لديها القدرة على أتمتة وزيادة المعرفة والإدراك البشري والبحث. تقدم الرأسمالية المعرفية حسابًا بديلاً ومعارضًا لاقتصاد المعرفة، وتوفر فكرة "العمل الإبداعي" وصفًا بديلاً مثيّرًا للاهتمام لـ "رأس المال البشري". في هذا الصدد، أستكشف الفلسفة والاقتصاد السياسي الأوسع للانفتاح و "إنتاج المعرفة المفتوحة" مع التركيز القوي على "الانفتاح الجذري" والأشكال الجديدة من "التعاون (العمل)". في عصر شبكات الجيل الخامس، هناك لا تزال هناك فرص للحصول على المعرفة العامة الكاملة، ومنصات التعلم والنشر التي إذا لم تكن مملوكة أو مدعومة من قبل الدولة، منظمة بشدة على الأقل لصالح علم الخير العام، على الرغم من أنه ليس من الواضح إلى متى سيبقى الحال على هذا النحو.

本文以回顾性的视角对以“知识社会主义”（KS）为标题的文献进行了综述，包括有关同伴生产，尤其是在合议，合作和集体智慧的话题中呈现不同的开放模式的文献。这些文献在“认知资本主义”中变得日益明显，它们共同说明了第四次知识革命的各个方面。本文通过综述对“知识社会主义”进行了理论化，并将其与知识资本主义和新自由主义知识经济进行了对比。我采用的是基于马克思的“认知资本主义”的话语体系，这种话语体系是与奈格里，维诺诺和拉扎托所领导的意大利的自治学派一起发展起来的一种形式的激进政治经济学。我试图通过关注数字劳动问题来发展教育领域马克思与福柯的联系。在我的讨论

中，我提请注意“数字理性时代”中知识（或算法）资本主义的特征，尤其要研究“深度学习”与所谓“技术失业”之间的关键关系。劳动力的无限替代是劳动力从以机器人为基础的自动化浪潮中，从工业形式向后工业化资本主义转变的驱动主题。“深度学习”是将知识转化为数据和信息的关键过程，而机器学习可以用算法，大数据集和数据密集型科学，来扩充和替代人类知识生产系统。劳力的无限替代原则适用于机械化装配厂以及后来的24小时/7天的“智能”制造，并在数字领域中重复了脑力劳动的过程。自动化和普遍的“劳动力下降”给教育，劳工政治，工会和福利提出了巨大的问题。资本不再需要大量的非熟练劳动力，即使是以离岸廉价价格购买的劳动力。这种现象刻画了在战后随着就业向东迁移，工业资本主义的早期阶段以及它的全球化特征。服务行业的第二波自动化始于1980年代，当时白领办公室的工作开始消失，ATM机于1969年首次引入，这是早期金融化过程的一部分。金融的数字化导致股票市场的自动化，而高频交易的现象代表了2000年代初与全球金融资本主义相关的第三波自动化。随着“平台资本主义”的兴起，基于算法的知识资本主义的兴起以及全球搜索引擎，大型出版业和度量行业的兴起，知识和研究的第四波自动化迅速发展。深度学习作为AI的一个方面是自动化的最新阶段，它具有自动化和增强人类认知，知识和研究的能力。认知资本主义为知识经济提供了另一种对立的解释，而“创造性劳动”的概念为“人力资本”提供了一个有趣的替代描述。通过这种理论与现代现象的联系，我探索了哲学和政治经济学的开放程度和“开放知识生产”的现象，并强调“彻底开放”和“合作（劳动）”的新形式。在5G网络时代，仍然有机会获得完全的公共知识，学习和发布平台，这些平台有些由国家所有或被国家资助，有些则至少在有关公共物品科学利益的方面受到了严格监管，尽管目前尚不清楚如何这种情况会持续多久

Cet article propose une analyse rétrospective d'un ensemble d'œuvres intitulé "Socialisme de la connaissance", qui passe en revue la littérature consacrée à la montée de la production par les pairs et, en particulier, à l'émergence de différents modes d'ouverture concernant la collégialité, la collaboration et l'intelligence collective qui sont devenues de plus en plus évidente dans le "capitalisme cognitif", qui illustrent ensemble des aspects de la quatrième révolution de la connaissance. L'étude théorise le "socialisme du savoir" à travers cette revue, en le comparant au capitalisme du savoir et à l'économie néolibérale du savoir. J'adopte le discours du "capitalisme cognitif" basé sur le "fragment des machines" de Marx qui s'est développé avec l'école autonomiste en Italie sous Negri, Virno et Lazzarato, une approche de l'économie politique radicale que j'ai tenté de développer en connectant Marx et Foucault dans le champ de l'éducation en se concentrant sur la question du travail numérique. Dans la discussion, j'attire l'attention sur les caractéristiques du capitalisme de la connaissance (ou de l'algorithmique) à "l'époque de la raison numérique" et, en particulier, sur la relation critique entre "l'apprentissage approfondi" et le "chômage technologique". La substitution infinie du travail est le motif déterminant de la transformation du travail dans le passage du capitalisme industriel au capitalisme postindustriel avec ses vagues d'automatisation basées sur la robotisation. L'apprentissage approfondi est le processus clé de la transformation des connaissances en données et en informations; l'apprentissage automatique peut compléter et remplacer les systèmes de production de connaissances humaines par des algorithmes, de grands ensembles de données et une science à forte intensité de données. Le principe de substitution infinie du travail appliqué aux usines d'assemblage mécanisé, puis à la fabrication «intelligente» 24 heures sur 24 et 7 jours sur 7, reproduit le processus du travail mental, en particulier dans le domaine numérique. L'automatisation et le "déclin généralisé du travail" posent d'énormes problèmes pour l'éducation, la politique du travail, les syndicats et le bien-être. Le capital n'a plus besoin de main-d'œuvre, contrairement à la masse de main-d'œuvre non qualifiée, même à des taux bas, qui caractérisait les débuts du capitalisme industriel ou sa mondialisation après la guerre, alors que les emplois migraient vers l'Est. L'automatisation de la deuxième vague du secteur des services a débuté dans les années 1980, lorsque les emplois de bureau ont commencé à disparaître et que le guichet automatique bancaire a été introduit pour la première fois en 1969, dans le cadre du processus initial de financiarisation. La numérisation de la finance a conduit à l'automatisation des marchés d'actions et le phénomène du trading à haute fréquence a représenté une automatisation de troisième vague associée au capitalisme financier mondial au début des années 2000. L'automatisation de la

quatrième vague du savoir et de la recherche s'est développée rapidement avec la croissance du "capitalisme de plates-formes", l'émergence du capitalisme fondé sur l'algorithme et celle des moteurs de recherche mondiaux, des grandes industries de l'édition et de la métrique. L'apprentissage en profondeur en tant qu'aspect de l'intelligence artificielle est la dernière phase de l'automatisation, capable d'automatiser et d'accroître l'intelligence humaine, les connaissances et la recherche. Le capitalisme cognitif offre un récit alternatif et opposé de l'économie de la connaissance, et la notion de "travail créatif" fournit une description alternative intéressante au «capital humain». À cet égard, j'explore la philosophie et l'économie politique plus larges de l'ouverture et de la "production de connaissance ouverte" en mettant un accent particulier sur "l'ouverture radicale" et les nouvelles formes de "collaboration". À l'ère des réseaux 5G, il existe encore des possibilités de connaissances publiques complètes, de plateformes d'apprentissage et de publication qui, si elles ne sont pas possédées ou subventionnées par l'État, sont au moins fortement réglementées dans l'intérêt de la science du bien public, bien qu'on ne sache pas combien de temps cela restera.

В этой статье дается ретроспективный взгляд на труд под названием «социализм знаний» (СЗ) для обзора литературы о росте взаимного производства и, в частности, о появлении различных способов открытости, касающихся коллегиальности, сотрудничества и коллективного разума, которые становятся все более очевидными в «когнитивном капитализме», который вместе иллюстрирует аспекты четвертой революции знаний. В этом обзоре теоретизируется «социализм знаний», противопоставляя его капитализму знаний и неолиберальной экономике знаний. Я принимаю дискурс о «когнитивном капитализме», основанный на «Фрагменте машин» Маркса, который развивался вместе с автономистской школой в Италии при Негри, Вирно и Лаззарато, подход в радикальной политической экономии, который я пытался развить, основываясь на работах Маркса и Фуко в области образования, сосредоточившись на вопросе цифрового труда. В своей дискуссии я обращаю внимание на особенности капитализма знаний (или алгоритмического капитализма) в «эпоху цифрового разума» и, в частности, исследую критические отношения между «глубоким обучением» и тем, что называется «технологическая безработица». Бесконечная замещение труда является движущим мотивом трансформации труда при переходе от промышленных к постиндустриальным формам капитализма с его волнами автоматизации, основанными на роботизации. «Глубокое обучение» является ключевым процессом в преобразовании знаний в данные и информацию; машинное обучение может дополнять и заменять системы производства человеческих знаний алгоритмами, большими наборами данных и интенсивной наукой. Принцип бесконечного замещения труда, применяемый к механизированным сборочным предприятиям, а затем к «интеллектуальному» производству 24/7, дублирует процесс умственного труда, особенно в цифровой сфере. Автоматизация и общее «сокращение рабочей силы» ставят огромные вопросы для образования, трудовой политики, профсоюзов и социального обеспечения. Капитал больше не нуждается в рабочей силе так, как он нуждался в массе неквалифицированного труда, даже по оффшорным дешевым ставкам, что характеризовало ранние стадии промышленного капитализма или его глобализацию в послевоенный период, когда рабочие места мигрировали на Восток. Вторая волна автоматизации сектора услуг началась в 1980-х годах, когда офисные рабочие места стали исчезать, а банкомат был впервые представлен в 1969 году как часть раннего процесса финансовизации. Оцифровка финансов привела к автоматизации фондовых рынков, а феномен высокочастотной торговли стал автоматизацией третьей волны, связанной с глобальным финансовым капитализмом в начале 2000-х годов. Автоматизация знаний и исследований четвертой волны быстро развивалась с ростом «платформенного капитализма», ростом капитализма знаний на основе алгоритмов и развитием глобальных поисковых систем, крупных издательских и метрических отраслей. Глубокое обучение как аспект ИИ - это новейшая фаза автоматизации, которая способна автоматизировать и расширять человеческое познание, знания и исследования. Когнитивный капитализм предлагает альтернативный и противоположный подход к экономике знаний, а понятие «творческий труд» дает интересное альтернативное описание «человеческого капитала». В этой связи я исследую более широкую философию и политическую экономию открытости и

«открытого производства знаний» с сильным акцентом на «радикальной открытости» и новых формах «сотрудничества». В эпоху сетей 5G существуют тем не менее, возможности для полного общественного познания, обучения и издательских платформ, которые, если не принадлежат государству или не субсидируются им, по крайней мере, строго регулируются в интересах общественной науки, хотя неясно, как долго это будет продолжаться.

Este artículo toma una visión retrospectiva de un cuerpo de trabajo titulado 'socialismo del conocimiento' (SC) para revisar la literatura sobre el aumento de la producción entre pares y, en particular, la aparición de diferentes modos de apertura en relación con la colegialidad, la colaboración y la inteligencia colectiva que se ha vuelto cada vez más evidente en el 'capitalismo cognitivo', que en conjunto ilustran aspectos de la Cuarta Revolución del Conocimiento. El trabajo teoriza el 'socialismo del conocimiento' a través de su revisión, en contraste con el capitalismo del conocimiento y la economía neoliberal del conocimiento. Adopto el discurso de el 'capitalismo cognitivo' basado en el 'Fragmento sobre las máquinas' de Marx que se desarrolló con la escuela autonomista en Italia con Negri, Virno y Lazzarato; un enfoque en la economía política radical que he intentado desarrollar casándome con Marx y Foucault en el campo de la educación centrándome en la cuestión del trabajo digital. En mi discusión, llamo la atención sobre características del capitalismo del conocimiento (o algorítmico) en 'la época de la razón digital' y, en particular, examino la relación crítica entre el 'aprendizaje profundo' y lo que se conoce como 'desempleo tecnológico'. La sustitución infinita de la fuerza de trabajo es el motivo principal de la transformación del trabajo en el cambio desde las formas industriales hacia las posindustriales del capitalismo con sus oleadas de automatización basadas en la robotización. El 'aprendizaje profundo' es el proceso clave en la transformación del conocimiento en datos e información, y, el aprendizaje a través de máquinas puede aumentar y reemplazar los sistemas de producción del conocimiento humano con algoritmos, grandes conjuntos de datos y ciencia intensiva en datos. El principio de sustitución infinita del trabajo aplicado a las plantas de ensamblaje mecanizadas y, posteriormente, a la manufactura 'inteligente' 24/7, duplica el proceso de la mano de obra mental, especialmente en el ámbito digital. La automatización y la 'disminución de la mano de obra' generalizada, plantean enormes preguntas para la educación, la política laboral, los sindicatos, y el bienestar. El capital ya no necesita mano de obra de la forma en que requería la masa de trabajadores no calificados, incluso a precios baratos offshore, que caracterizaron a las primeras etapas del capitalismo industrial o su globalización en el periodo de post guerra a medida que los empleos migraban hacia el este. La segunda oleada de automatización del sector de servicios comenzó en la década de 1980 cuando los trabajos de oficina de cuello blanco comenzaron a desaparecer y los cajeros automáticos fueron introducidos por primera vez en 1969 como parte del proceso inicial de la financiarización. La digitalización de las finanzas condujo a la automatización de los mercados de valores y el fenómeno del comercio de alta frecuencia representado en la tercera ola de automatización asociada al capitalismo financiero global a principios del 2000. La cuarta oleada de automatización del conocimiento y la investigación se desarrollo rápidamente con el crecimiento del 'capitalismo de plataforma', el surgimiento del conocimiento capitalista basado en el algoritmo y el surgimiento de motores de búsqueda globales, las grandes publicaciones y las industrias de métricas. El aprendizaje profundo, como un aspecto de la IA es la última fase de la automatización que tiene la capacidad de automatizar y aumentar la cognición humana, el conocimiento y la investigación. El capitalismo cognitivo ofrece una explicación alternativa y opuesta de la economía del conocimiento, y la noción de 'trabajo creativo' provee una descripción alternativa interesante al 'capital humano'. Al respecto, exploro la filosofía más amplia y la economía política de la apertura y la 'producción de conocimiento abierto' con un fuerte énfasis en la 'apertura radical' y las nuevas formas de 'co(labor)ación'. En la era de las redes de 5G, todavía hay oportunidades para el conocimiento público completo, aprendizaje y plataformas de publicaciones que son, si no estatales o subsidiadas por el estado, al menos están fuertemente reguladas en interés de la buena ciencia pública, a pesar de que no está claro cuanto más va a permanecer así.

1. Introduction: Re-visiting the neoliberal knowledge economy

In a world where income is being decoupled from education and work, and neoliberal capitalism has led to an increasing concentration of wealth (Piketty, 2014), it is likely that social and educational inequalities will accelerate and proliferate as equality and excellence continue to dominate Western educational policy agendas. Tobias Peter and Ulrich Bröckling (2016) argue that equality and excellence constitute the hegemonic discourses of ‘economisation’ within the German education system, a thesis that has useful applications to education systems elsewhere. Equality of opportunity is increasingly seen in neoliberal terms as that designed to utilise the full limits of human capital. In higher education ‘excellence’ serves to introduce a logic of competition for educating the elite. Peter and Bröckling (2016) adopt a theoretical approach from Foucault’s governmentality and Luhmann’s systems theory to discuss how mechanisms of exclusion and inclusion operate in schooling and university education sectors. As they suggest:

Equality and excellence appear, at least superficially, as opposing and mutually exclusive orientations; one either supports the promotion of the elite and a competitive understanding of education, or one supports collective learning and the equal right to education for all - *tertium non datur*.

They trace these antagonisms to a basic model of rationality that drives the global educational discourse where discourses of excellence and equality get cashed out in neoliberal market terms and can be understood by reference to neoliberal governmentality. Specifically, embracing political discourse theory they argue: ‘equality and excellence represent models for two opposing hegemonic projects in the German education system, which nonetheless meet within a transnational framework of economic competition’. They demonstrate how the mobilisation of a concept of excellence is anchored in the qualitative improvement of education seen as human capital and learning for the “information age” and how education has become decisive for competitiveness in a world where ‘productivity is based on the creation, distribution and use of knowledge ...’

The economisation of education has taken place through the progressive amalgamation of discourse threads to form the ‘knowledge economy’ based on new endogenous growth theory developed by Romer and others in the 1990s and adopted and popularised by the OECD soon after. The OECD’s formulation became the dominant neoliberal discourse that blended elements from earlier management, sociological, and economic studies and recast education, effectively, from a welfare right concerned with equality of opportunity to the central theory of human capital development. As neoliberal policies followed notions of school choice, vouchers and privatisation with the marketization of education, the liberal rhetoric of equality of opportunity faded away, surviving intact only at the primary school level. In the hard-core neoliberal states the educational inequalities soon began to increase under system that decentralised State control and decision-making to the local level in a form of institutional autonomy that had the effect of benefitting schools from ‘rich’ areas and diminishing those from ‘poor’ areas.

I have been interested in Foucault’s reading of neoliberalism and its application to discourses of the knowledge economy for some years now. In 2001, I published a paper that reviewed and critiqued national education policy constructions of the knowledge economy (Peters, 2001). Referencing the post-war consensus that emerged with the likes of economists, futurists, and sociologists -- different threads of a *blended* discourse by Drucker, Machlup, Porter and Thurow - I charted the ruling paradigm of the economics and productivity of knowledge that had been seen as

the only source of comparative advantage and commented that many western governments had begun the process of restructuring their national education systems and redesigning the interface between universities and business based neoliberal theories of human capital, public choice and new public management.

In this context, I made reference to the discourse of the ‘future of work’ citing Charles Handy’s work in the 1980s to signal the end of full employment and the redesign of education to cope with increased job mobility and multiple careers. By ‘knowledge economy’, I stressed the main characteristics of received mainstream discourse that focused on (1) economics of abundance, (2) the annihilation of distance, (3) the de-territorialisation of the state, (4) the importance of local knowledge, and (5) investment in human capital. I teased out several separate discourse strands from economics, management theory, futurology and sociology that can be identified as having contributed to shaping the policy narrative of the ‘knowledge economy’ including: the economics of information and knowledge (Marschak, Machlup, Becker, Friedman, Buchanan & Tullock, Romer); new management theory and knowledge managerialism; sociology of the labour process; sociology of knowledge and education; futurology, futures research, forecasting, foresight studies; and communications and IT theory.

I suggested that these are clearly disparate disciplines: ‘fields and discourses that operate with different assumptions, employ different methodologies and reach different and sometimes opposing conclusions.’ And I went on to suggest: ‘The art of policy scholarship is intended, in part, to gain awareness of these different strands as they influence policy narratives, to disentangle them and comment upon inconsistencies.’ These discourses came from across the political spectrum and the blended discourse often represented wholesale conceptual ‘borrowings’ without proper attributions.

In the rest of the paper, I attempted to define the discourse of the knowledge economy by investigating three examples of national policy constructions in the UK, Scotland, and NZ, all of which were strong examples of policy discourses aimed at the economisation of education. In the final section and in those early days I made clear that I was not in principle against the concept of the knowledge economy, at least as it fits within the social democratic tradition that posits an economy as subordinate to the state and the question of sovereignty. I argued the notion of the ‘knowledge society’ provides grounds for both the *reinvention of education as a welfare right* and the recognition of ‘knowledge rights’ as a basis for social inclusion and informed citizenship. This view can be contrasted with that of the ‘knowledge economy’ as simply an ideological extension of the neoliberal paradigm of globalisation, where the term stands for a ‘stripped down’ functionalist view of education in service of multinational information capital. I was influenced by Stiglitz’s argument for knowledge as a *global public good* – a discourse that appeared at the end of the 1990s. In my critique, I challenged the easy accommodation between ‘knowledge’ and ‘information’ and returned to the question of employment and ‘knowledge workers’ by reference to Rifkin’s (1998) ‘end of work’ analysis of the US economy and the threat of automation in the shift from industrial to knowledge capitalism transforming the West into ‘workless worlds’, where only an elite technical labour force will find jobs.

If you remember, Rifkin’s educational solution was to expand education’s role in civil society as an arena for job creation and social-service provision in the coming century. I made reference to Andre Gorz and indicated that ‘In the Hegelian and Marxist senses, the nature of work is tied up not only with “practico- sensory activity”, but with *poiesis* and self-creation’ (Peters, 2001: 16). Returning to Foucault, I emphasised how the formation, circulation and utilisation of knowledge

in the late twentieth century had become a fundamental problem and followed Foucault who compared the accumulation of knowledge to that of capital (in 19th century capitalism). He asserted that at this juncture -- in the age of the knowledge economy -- it is now impossible to pursue the question of knowledge separately from the question of capital. Surely this early statement by Foucault made in conversation with the Italian Marxist Duccio Trombadori in 1978 is an instantiation of his concept of power-knowledge (*le savoir-pouvoir*)? For Foucault (1980) modern power is based on knowledge and reproduces it; both share dynamic and unstable systemic characteristics as relational, ubiquitous, and productive. The central feature of political economy in the twentieth century was the formation, circulation and utilisation of knowledge rather than that of capital and its dialectic of capital-labour. Through his later studies of neoliberalism Foucault foresaw the importance of the centrality of knowledge for radical political economy and indicated a pathway to understand the further ‘technologisation’ of an emerging single interconnected planetary system of global knowledge for the first time in human history.

That paper was published over eighteen years ago and the paper has been well cited (over 250 times). Now it is old hat. Over the intervening years I have followed through on many of these themes in a variety of papers and books that extend and depart from the original arguments, emphasising my concerns for technological unemployment, especially as regards youth and searching for viable social democratic alternatives. In subsequent work, I have employed an approach using Foucault’s work on neoliberal governmentality. Foucault gave his famous lectures on neoliberalism as a form of biopolitics in 1979 just as Margaret Thatcher came to power, focusing on Becker and American human capital theory as the most advanced form of neoliberalism. But Foucault died prematurely in 1984 and capitalism has kept on changing, teetering from one crisis to another – the crisis of productivity, the global financial crisis of 2008, the crisis of political legitimation following the socialisation of bank failures, and austerity politics that aimed to recoup national revenues. Foucault, it might be observed, did not have much to say about capitalism per se as an international system except through glancing comments and his interpretation of neoliberalism – nevertheless, a major contribution, in my view. Certainly, Foucault did not anticipate the formalisation, mathematicisation and compression that took place under processes of financialisation in what I have termed ‘algorithmic capitalism’, sometimes also referred to as ‘platform capitalism’ or ‘high frequency trading’ (Peters, 2017); nor did he envisage the development of the concept of ‘cognitive capitalism’ based on his work in combination with Marx’s ‘Fragment of Machines’ developed by the autonomist school in Italy under Negri, Virno and Lazzarato. I have attempted to develop this attempt to marry Marx and Foucault in the field of education by focusing on the question of digital labour and youth unemployment (Peters & Bulut, 2011; Peters & Besley, 2013; Olssen & Peters, 2015).

2. The Discourse of Cognitive Capitalism

Cognitive capitalism is the culmination and most systematic statement to date of the Italian *autonomista* of an outline of an economic theory of a form of capitalism superceding industrial capitalism. Yann Boutang (2012) working with his colleagues in Paris around the journal he established in 2012 called *Multitudes*, build on the work Antonio Negri, Paolo Virno, Christian Marazzi, Andrea Fumagalli, and others in the Italian autonomist school to focus on cognitive and ‘immaterial’ labour (Lazzarato, 1996), after Marx’s ‘Fragment on Machines’ (<http://thenewobjectivity.com/pdf/marx.pdf>). Theorists of cognitive capitalism claim that a fundamental shift occurs in capitalism based on physical resources to knowledge and brain power

as both input and output, signalling a break with Fordism and a historically new stage of capitalism (Lucarelli & Vercellone, 2013). *Postoperaismo* is an empirical based understanding of changes in production and the shift to ‘immaterial labour’ characterises the growing significance of the service sector, creative industries and so-called knowledge economy. Pitts (2017: 4) paints what now seems a familiar scenario based on this interpretation (in order to contest this reading suggesting it overlooks the persistence of social relations):

The ‘Fragment on Machines’ (1973, 704-706) is a small section of his *Grundrisse*, the notebooks for what would later become *Capital* (1976). In it, Marx presents a future scenario where the use of machines and knowledge in production expands. Production revolves more around knowledge than physical effort. Machines liberate humans from labour, and the role of direct labour time in life shrinks to a minimum. Free time proliferates. The divorce of labour-time from exchange value sparks capitalist crisis. But this technological leap brings about the possibility of a social development on a massive scale. Freed from physical subordination to the means of production, workers grow intellectually and cooperatively. This freely-generated ‘general intellect’ reinserts itself, uncoerced, into production as fixed capital. The worker is incorporated only at a distance, rather than as a constituent part of the capital relation. The potential for an incipient communism arises.

I have no difficulty in holding with advocates of *Postoperaismo* that ‘the technological leap’ may lead to ‘social development’ and even to a kind of ‘socialisation of thought’ but I have difficulty in accepting that this socialisation all points the same way or that it leads to the potential for communism based on ‘freely-generated general intellect’, especially when in face of technological unemployment the notions of ‘worker’ and ‘labour’ are radically redefined.

If we accept the shift at face value it highlights significant consequences for education and digital labour (Peters & Bulut, 2011) and for the future shape of a sharing and participative economy based on education and learning considered in the broadest sense. At the same time, deep learning has come of age (well after *Postoperaismo*). The rapid development of machines that can learn without explicit program instruction have experienced accelerated success in the last five years surpassing technical expectations. In combination with ‘big data’ analytics, deep learning perhaps best represented in Google’s DeepMind and IBM’s ‘Watson’, has defeated the best international Chess and Go players and make an unsurpassed contribution to cancer research (Peters, 2017). Deep learning, a branch of artificial intelligence, threatens to accelerate the automation of work and the concomitant process of technological unemployment at a time in contemporary history when youth employment has reached record post-war levels. A frequently cited Oxford study drawing upon recent advances in Machine Learning (ML) and Mobile Robotics (MR) estimates that 45 percent of America’s occupations will be automated within the next 20 years (Frey & Osborne, 2017).

There have been many attempts in the post-war era to characterise the future of capitalism from sociological work focused on postindustrialism as both a critique of industrialism and a prediction of economic shifts based on the centrality of theoretical knowledge (e.g., Bell, Touraine, Toffler) to more recent conceptualizations of the ‘information’ (e.g., Porat) and ‘knowledge economy’ (e.g., Drucker, Machlup, Romer). ‘Cognitive capitalism’ (CC) is a Marxist-inspired critique of the knowledge economy that has a debt to endogenous growth theory. This paradigm or hypothesis focuses on how the shift to knowledge as a factor of production and its characterisation in terms of cognitive activity transforms the labour/capital relationship. CC draws our attention to labour-

process models that technologically extend human communication and realise the creation of value through the production of knowledge and other symbolic goods, increasingly organised in terms of large data networks.

I have pursued this topic in a number of publications on ‘knowledge *capitalism*’ (Peters & Besley, 2006), ‘financialisation’ and ‘finance capitalism’ (Peters & Besley, 2015), the ‘creative economy’ (Araya & Peters; Peters, Murphy & Marginson, 2009), ‘cognitive capitalism’ (Peters & Bulut, 2011), attempting to sketch a concept of ‘knowledge socialism’ (Peters, 2004) based on ‘open knowledge’ and ‘open science economy’ (Peters, 2009), and ‘radical openness’ (Peters, 2014) that develops an explicit recognition of the ways in which these shifts and forces reconfigure education at all levels at the centre of the knowledge economy, and that through process of peer production and collective intelligence rests on intellectual labour as the source of creative value. In essence, I was exploring forms of openness that offered a possibility of an economy based on symbolic public goods, on the one hand; and on the other, exploring a neo-Marxist conception of cognitive capitalism that offered a critique of human capital theory. This is the kind of description I offered in my edited book with Ergin Bulut, *Cognitive Capitalism, Education and the Question of Digital Labor* (2011):

‘Cognitive capitalism’ is a general term that has become significant in the discourse analyzing a new form of capitalism sometimes called the third phase of capitalism, after the earlier phases of mercantile and industrial capitalism, where the accumulation process is centered on immaterial assets utilizing immaterial or digital labor processes and production of symbolic goods and experiences. It is a term that focuses on the socio-economic changes ushered in with the Internet as platform and new Web 2.0 technologies that have impacted the mode of production and the nature of labor.

The core of cognitive capitalism is centered on digital labor processes that produce digital products cheaply utilizing new information and communications technologies that are protected through intellectual property rights regimes which are increasingly subjected to interventions and negotiations of the nation states around the world.

I am not concerned to defend this notion here, nor to comment on its Marxist origins and sometimes heavily Romantic versions that lay stress on processes of collective intelligence, open science, and social innovation all of which I have indicated as ways to reclaim the public dimensions of knowledge (e.g., Peters, 2013). Neither am I concerned to acknowledge the ways in which CC underplayed the cultural dimension or the relational and affective aspects of the new capitalism (Peters, 2019). In this paper, I want mainly to comment on the relation of CC to what I call ‘the epoch of digital reason’ (Peters, 2016) and, in particular, the critical relationship between ‘deep learning’ and what is called ‘technological unemployment’ (Peters, Jandric & Means, 2019).

If the infinite substitution of labour is the driving trope of the transformation of labour in the shift from industrial to postindustrial forms of capitalism, with its waves of automation based on robotization, then ‘deep learning’ can be considered the key metaphor in the transformation of knowledge into data and information. Simply put, machine learning can augment and replace human knowledge production systems with algorithms and large data sets. We might say that the infinite substitution principle of labour first into mechanised assembly plants and later robot manufacturing, duplicates the process for mental labour especially in the digital realm. In short,

what is the impact of artificial intelligence on employment? The current anxiety seems well placed and we have been warned about the ‘jobless future’ not just for routine manual and cognitive jobs but also for non-routine ‘creative’ and highly skilled jobs.

The empirical analysis reveals a more complex picture where AI automation redefines employment and may even create some jobs. Autonomous vehicle or driverless cars may in fact disestablish many job types in transport while creating a few to cope with accidents and emergencies. Certainly, the scale and rate of job creation will be affected. More importantly, automation and the generalised ‘decline of labour’ seem to pose huge questions for education, labor politics, unions, and welfare. Capital no longer needs labour in the way it required the mass of unskilled labor, even at offshore cheap rates, that characterised early stages of industrial capitalism or its globalisation in the post-war period as jobs migrated East. Even skilled tasks now can be handled by robots at diminishing cost levels at 24/7 fully automated plants. We saw second wave automation of the service sector in the 1980s when white collar office jobs began disappearing and the ATM machine was first introduced in 1969 as part of the early process of financialization. The digitisation of finance that among other things led to the automation of equity markets and the phenomenon of high-frequency trading representing a third wave automation associated with global finance capitalism, coming to fruition in the early 2000s. The fourth wave automation of knowledge and research developed quickly with the growth of ‘platform capitalism,’ the rise of algorithmic-based knowledge capitalism with the rise of search, big publishing and metrics industries (Peters, 2012, 2013a, 2013b, 2017). Deep learning as an aspect of AI that has recently experienced a period of accelerated development and break-through technologies is the latest phase of automation that has the capacity to automate and augment human cognition.¹

3. Deep Learning and the Final Stage of Automation

Ian Goodfellow and Yoshua Bengio and Aaron Courville (2016) who wrote the first textbook on deep learning, comment: ‘The true challenge to artificial intelligence proved to be solving the tasks that are easy for people to perform but hard for people to describe formally—problems that we solve intuitively, that feel automatic, like recognizing spoken words or faces in images.’ Their solution is

To allow computers to learn from experience and understand the world in terms of a hierarchy of concepts, with each concept defined in terms of its relation to simpler concepts. By gathering knowledge from experience, this approach avoids the need for human operators to formally specify all of the knowledge that the computer needs. The hierarchy of concepts allows the computer to learn complicated concepts by building them out of simpler ones.

Goodfellow, Bengio and Courville (2016) identify three waves of development of deep learning: deep learning known as cybernetics in the 1940s–1960s appeared with biological theories of learning; deep learning known as connectionism in the 1980s–1990s that used ‘back-propagation’

¹ A special report in *The Economist* in 2016 treats this as a question for the *delivery* of education through MOOCs and new ‘adaptive-learning’ start-ups in order to create AI learning systems that are more personalised, flexible, inclusive and engaging, <http://www.economist.com/news/special-report/21700760-artificial-intelligence-will-have-implications-policymakers-education-welfare-and>

to train neural network with multiple layers, and the current resurgence under the name deep learning beginning in 2006 and only appearing in book form in 2016. They argue that the current deep learning approach to AI goes beyond the neuroscientific perspective applying ‘machine learning frameworks that are not necessarily neurally inspired.’ Deep learning, then, is ‘a type of machine learning, a technique that allows computer systems to improve with experience and data.’ Morris, Schenloff and Srinivasan (2017) report on the remarkable ‘take-off’ of artificial intelligence and with the resurgence also the return of the *machinery question* posed almost 200 years ago in the context of the Industrial Revolution. They note the upbeat analysis of mainstream press in 2016 and document the publication of several US and UK reports that suggest not only that ‘AI has arrived’ but also offers ‘huge potential for more efficient and effective business and government.’² The economists cited welcome AI for productivity gains. They ask ‘What triggered this remarkable resurgence of AI?’ and they answer:

All evidence points to an interesting convergence of recent advances in machine learning (ML), big data, and graphics processing units (GPUs). A particular aspect of ML—called deep learning using artificial neural networks—received a hardware boost a few years ago from GPUs, which made the supervised learning from large amounts of visual data practical. (p. 407)

The popularity of ML, they note, has been enhanced by machines out-performing human in areas taken to be prime examples of human intelligence: ‘In 1997, IBM’s Deep Blue beat Garry Kasparov in chess, and in 2011, IBM’s Watson won against two of Jeopardy’s greatest champions. More recently, in March 2016, Google’s AlphaGo defeated Lee Sedol, one of the best players in the game of Go’ (p. 407). Following this popular success, as Morris et al. (2016) note the private sector took up the challenge. They note, in particular, that IBM developed its cognitive computing in the form of their system called Watson, a DeepQA system capable of answering questions in a natural language.³ The Watson website - <https://www.ibm.com/watson/> - makes the following claim ‘Watson can understand all forms of data, interact naturally with people, and learn and reason, at scale.’ And it also talks of ‘Transforming learning experience with Watson’ taking personalised learning to a new level:

We are transforming the learning experience through personalization. Cognitive solutions that understand, reason and learn help educators gain insights into learning styles, preferences, and aptitude of every student. The results are holistic learning paths, for every learner, through their lifelong learning journey.

Already firms are talking about transforming the learning experience through personalization with purported ‘cognitive solutions’ that understand, reason and learn help educators gain insights into individual student learning styles and preferences. IBM’s Watson Enlight is a planning tool to support teachers with curated, personalized learning content and activities to align with each student’s needs (<https://www.ibm.com/watson/education/>). The IBM Whitepaper (2016) claims that ‘Data-driven cognitive technologies will enable personalised education and improve outcomes

² See “Artificial intelligence: opportunities and implications for the future of decision making” G.S.O., https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/566075/gs-16-19-artificial-intelligence-ai-report.pdf

³ See David Ferrucci, Dan Cerutti and Ken Jennings on IBM's Watson at Singularity Summit 2011, <https://www.youtube.com/watch?v=oFMeBId7vIM>

for students, educators and administrators’ (<https://public.dhe.ibm.com/common/ssi/ecm/ed/en/edw03008gben/EDW03008GBEN.PDF>).

DeepMind, another prominent example, advertises itself in terms of artificial intelligence research ‘developing programs that can learn to solve any complex problem without needing to be taught how’ (<https://deepmind.com/about/>). One of the current developments focuses on the realm beyond *automation* to explore the advanced engineering of *autonomous systems* already well advanced with autonomous vehicles on land, sea and air and, in particular, in space where NASA is exploring how these systems will learn to adapt to new and unforeseen circumstances.

In terms of the labour market US experts are split between whether AI will displace more jobs than it creates with evidence suggesting that any jobs created will be those in STEM that complements AI. Lee (2016) a top White House science advisor estimates that automated vehicles could threaten or alter 2.2 million to 3.1 million existing U.S. jobs. As Obama claimed before the recent US election: ‘The next wave of economic dislocations won’t come from over- seas. It will come from the relentless pace of automation that makes a lot of good middle-class jobs obsolete’ (cited in Rotman, 2016:92). It is clear that the comparative advantage of human forms of labour will be eroded as ML and deep learning systems become more sophisticated and more intelligent taking over and/or augmenting jobs in libraries, research, teaching, law and other tertiary sector and creative forms of employment that require a learning component and have previously been seen to be impervious to automation. In particular, the widespread development for ‘cognitive computing’, deep learning, and autonomous learning systems through applications and by start-ups strike at the very heart of the so-called ‘knowledge economy,’ or ‘cognitive capitalism’ where such systems are already able to augment and, in some cases, replace jobs in the engine room of ‘knowledge capitalism.’

The autonomous learning systems of AI, increasingly referred to as *deep learning* theoretically has the capacity to introduce autonomy into machine learning with the same dramatic impact that mechanization had first in agriculture with the creation of industrial labour force and massive rural-urban migration that built the mega-cities of today. Fordist automation that utilized technologies of numerical control (NC), continuous process production, and the production processes using modern information technology (IT) introduced the system of mass production and later, the ‘flexible system of production’ based on the Japanese management principles. When Fordism came to a crisis in the 1960s with declining productivity levels where Taylorist organizational forms of labour reached its limits, the search for greater flexibility diversified into new forms of automation especially as financialization took hold in the 2000s and high-frequency trading ensued on the basis of platforms of mathematical modelling and algorithmic engines (Peters, Paraskeva & Besley, 2011) These changes had been developing since the 1960s with the invention of the credit card and the eventual automation of equity markets (Peters, 2012, 2013, 2017a). This too-simple analysis that paints a broad picture of the dynamic changes of knowledge capitalism suggests a sequential or stage-related set of changes in automation of production, of economy and of labour. I do not use the term post-Fordism in this context because of its inherent analytical weakness (Vidal, 2011).

In an interesting edited collection, *Alleys of the Mind: Augmented Intelligence and Its Traumas* Matteo Pasquinelli (2016a: 7) foregrounds ‘the reason of trauma’ as a search for positive definitions of ‘error, abnormality, trauma, and catastrophe—a set of concepts that need to be understood in their cognitive, technological and political composition.’ Pasquinelli (2016a: 7) goes on to elaborate the philosophical context of segmented intelligence by reference to Foucault,

Deleuze *and* the Frankfurt on the *instrumentalization of reason*. It may be surprising for some to find out that Foucault's history of biopower and technologies of the self share common roots with cybernetics and its early error-friendly universal machines. Or to learn that the desiring machines, which 'continually break down as they run, and in fact run only when they are not functioning properly' (Deleuze and Guattari 1983, 8), were in fact echoing research on war traumas and brain plasticity from the First World War. Across the history of computation (from early cybernetics to artificial intelligence and current algorithmic capitalism) both mainstream technology and critical responses to it have shared a common belief in the determinism and positivism of the *instrumental* or *technological rationality*, to use the formulations of the Frankfurt School (Horkheimer 1947; Marcuse 1964).

Pasquinelli's (2016b: 2003) 'Keyword: Augmented Intelligence,' offered as an afterword for the collection makes clear the connection and synonyms, and the intellectual work that needs to be done in order to get a grip on this concept:

Synonyms include: augmented human intellect, machine augmented intelligence, and intelligence amplification. Specifically, extended mind, extended cognition, externalism, distributed cognition, and the social brain are concepts of cognitive sciences and philosophy of mind that do not necessarily involve technology (Clark and Chalmers 1998). Augmented reality, virtual reality, and teleoperation can be framed as a form of augmented intelligence, moreover, for their novel influence on cognition. Brain-computer interfaces directly record electromagnetic impulses of neural substrates to control, for instance, external devices like a robotic arm, and raise issues of the *exo-self* and *exo-body*.

I find the theoretical recourse to the history of modern cybernetics that characterizes the collection both useful and instructive as means of viewing 'algorithmic capitalism' – a term I have used myself (Peters, 2012, 2013, 2017). Stiegler's (2010) *For a New Critique of Political Economy* here is apposite and challenging when he argues that machines have confiscated the knowledge and memories of knowledge workers such that proletarianization now encompasses not only the muscular system (Marx), but also the nervous system of the so-called creative workers in the knowledge economy. I found essay by Michael Wheeler (2016) 'Thinking Beyond the Brain: Educating and Building from the Standpoint of Extended Cognition' and Luciana Parisi (2016) 'Instrumental Reason, Algorithmic Capitalism, and the Incomputable' particularly useful for the purposes of this essay.

My fear, and I think it is well founded, is not only of a 'final' stage of automation that takes place with the development of machine and deep learning that at least theoretically threatens 'technological unemployment,' but also that an even more savage set of emerging inequalities will ensue. These growing inequalities seem likely to be focused on deepening youth unemployment and inequalities in educational opportunity that became pronounced under financialization of education, with the trillion-dollar blow-out in US student loans and austerity capitalism after the Great Recession, especially in the Mediterranean economies. In this new space of deep learning and its effects on university-based research and knowledge workers human capital arguments seem old-fashioned and limp, although the innovation side of endogenous growth theory may still hold. 'End of work' and 'future of work' discourses as Caffentzis (1999: 20) notes has witnessed a return 'reminiscent of the mid-1970s, but with a number of twists':

In the earlier period, books like *Where Have All the Robots Gone?* (Sheppard 1972), *False Promises* (Aronowitz 1972) and *Work in America* (Special Task Force 1973), and phrases like "blue collar blues," "zerowork" and "the refusal of work" revealed a crisis of the assembly line worker which expressed itself most dramatically in wildcat strikes in U.S. auto factories in 1973 and 1974 (Linebaugh and Ramirez 1992)...

But in the mid-1990s books like *The End of Work* (Rifkin 1995), *The Labor of Dionysius* (Negri and Hardt 1994) and *The Jobless Future* (Aronowitz and De Fazio 1994), and phrases like "downsizing" (New York Times 1996) and "worker displacement" (Moore 1996) have revived themes associated with the crisis of work at a time when the power relation between workers and capital is the inverse of the 1970s. Whereas in the 1970s workers were refusing work, in the 1990s capitalists presumably are refusing workers!

Caffentzis (1999: 35) concludes:

Negri and Rifkin are major participants in the "end of work" discourse of the 1990s, although they occupy two ends of the rhetorical spectrum. Rifkin is empirical and pessimistic in his assessment of the "end of work" while Negri is aprioristic and optimistic. However, both seem to invoke technological determinism by claiming that there is only one way for capitalism to develop.

A working hypothesis and a dark scenario is that in an age of deep learning-- the final stage of automation--the welfare state based on full employment, might seem a quaint and romantic past when labour, withdrawal of labour, and labour politics went together and had some force in an industrial age. In retrospect and from the perspective of algorithmic capitalism in full swing the welfare state and full employment may seem like a mere historical aberration.

Algorithmic Capitalism in the Epoch of Digital Reason

In my work, I have become more interested in the question of education and digital labour in what I call the 'epoch of digital reason' in order to explore the basis for knowledge socialism rather than knowledge capitalism. Cognitive capitalism seemed to me to offer an alternative and opposing account of knowledge capitalism, and the notion of 'creative labour' provided an interesting alternative description to 'human capital'. In this connection, I have explored, in particular, the wider philosophy and political economy of openness and open knowledge production with a strong emphasis on 'radical openness' and new forms of 'co(labor)ation' (Peters, 2014). After completing my PhD thesis in 1984 on the problem of rationality in Wittgenstein, I was drawn to the work of Lyotard, Foucault and Derrida and I published works that explored a poststructuralist interpretation of Marxism and analysed education as a form of knowledge capitalism (e.g., Peters, 2001; 2003). In later work, I was captured by the promise of the 'paradigm of openness' and became interested in all forms of openness as it represented a moment of collective intelligence in science and education (e.g., Peters & Roberts, 2013; Peters, 2013). In a significant paper for my own thinking I outlined three forms and associated discourses of the 'knowledge economy': the 'learning economy', based on the work of Bengt-Åke Lundvall; the 'creative economy' based on the work of Charles Landry, John Howkins and Richard Florida; and the 'open knowledge economy' based on the work of Yochai Benkler and others. I argued that these three forms (and discourses) represented three recent related but different conceptions of the knowledge economy, each with clear

significance and implications for education and education policy, with the last providing a model of radically non-propertarian form that incorporates both 'open education' and 'open science' economies (Peters, 2010). I have been seeking a social democratic alternative to constructions of the neoliberal knowledge economy that respects the collective and public dimensions of knowledge as a symbolic social good. In retrospect, I understand that I have been trying to subvert the discourse and have been trying in my own way to expand and experiment with the concept.

I became less satisfied with the concept of knowledge economy and sought a form of radical political economy in poststructuralist philosophy that had been a tendency in my early work. A major long-term historical tendency of capitalism not mentioned by Foucault because it only became evident in the years after his death, as I mentioned, is the dominance of finance culture and financialization based on the increasing formalization, mathematicization, and automation of finance markets (Peters et al., 2015). This development that grew out of long term developments in algebra and the algebrafication of logic, has increased the algorithmic governance and the growing prominence of big data informationalism. It indicated the close connection between information and market in a pronounced development of 'knowledge capitalism' that became increasingly more abstract and mathematic. It developed first in capital market applications and in the extension of world global finance markets and then in science and education through the application of search engines and online networks. I used the term 'bioinformational capitalism' in an echo of Foucault to describe and analyse the merging of two broad technological forces of contemporary capitalism: informational capitalism based on the rise of digital technologies on the one hand, and the new biology and biotech, on the other, that has created new life and, therefore, become able to renew its own material base (Peters, 2012). These two major forces – the digital and the biological – are now inextricably entwined (the biologisation of information and the informatisation of biology) and represent a vector of critical convergence within the postdigital (Peters & Besley, 2018). Increasingly, I sought to understand the contours of what I called 'the epoch of digital reason' in relation to AI, deep learning and 'algorithmic capitalism' (Peters & Jandric, 2015; Peters, 2017; Peters & Besley, 2018). In 'Critical Philosophy of the Postdigital' working with Tina Besley, we drew on our recent works on cybernetics, complexity theory, quantum computing, Artificial Intelligence (AI), deep learning, and algorithmic capitalism to bring these ideas together to develop a *critical* philosophy of the postdigital based on an understanding of quantum computing (QC). QC is based on quantum mechanics and offers a radically different approach from classical computing based on classical mechanics. Cybernetics, and complexity theory, provide insight into systems that are too complex to predict their future. Artificial Intelligence and deep learning are promising the final stage of automation which is not compatible with the welfare state based on full employment. We have thus arrived into the age of algorithmic capitalism, and its current phase, 'biologization of digital reason' is a distinct phenomenon that is at an early emergent form that springs from the application of digital reason to biology and the biologization of digital processes. Rejecting a fully mechanical universe, therefore, a critical pedagogy of the postdigital is closely related to Whitehead's process philosophy, which is a form of speculative metaphysics that privileges the event and processes over and above substance. A critical philosophy of the postdigital is dialectically interrelated with the theories such as cybernetics and complexity theory, and also processes such as quantum computing, complexity science, and deep learning. These processes constitute the emerging techno-science global system, perpetuating algorithmic capitalism, and the prospect of the application of 'intelligent publishing' in knowledge capitalism where machine learning also means 'machine writing' and AI applied to

research can operate entirely without human beings to discover deep configurations in big data science.

This is the fourth knowledge revolution, following Klas Schwab's (2017) *Fourth Industrial Revolution*, even though I have misgivings about the ways in which this view is somewhat deterministic and technology-driven. The notion clearly requires more theoretical work. Am I optimistic about the prospects of openness or of 'digital socialism'? I am more wary and sceptical than I was a decade ago about the opportunities for knowledge socialism especially in view of algorithmic capitalism, although there are still opportunities for full public knowledge, learning and publishing platforms that are, if not owned by the State, at least strongly regulated in the interests of public good science. Such public platforms are not obliged to return big profits from the mass personal data that the now soon to be trillion-dollar information utilities harvest from their users on a daily basis. We might call this 'digital socialism' based around a sharing economy. Tapscott and Williams (2007) placed the emphasis on peer-to-peer collaboration and smart new web companies that invented and harnessed digital architectures for collaboration focused on the new ethos of participation and openness, with the aim of realizing real value for participants. They argued that we are entering a new phase of economic participation in the economy 'where new forms of mass collaboration are changing how goods and services are invented, produced, marketed, and distributed on a global basis' (p. 10). Critics like Fuchs (2008) argued 'wikinomics' was a form of exploitation of unpaid labour and also an ideology ('digitalism') leading to an increase in precarious and unpaid labour. Mass collaboration has traditionally been associated with socialist self-management. The emergence of the cooperative economy, social media and peer-based commons production transcended 'the instrumental logic of competition and instrumental reason and anticipate a society that is based on cooperation, sharing, and participation' (Fuchs, 2008, p. 8). There is a well-established literature now twenty years old that argues for anti-capitalist or social democratic potential of public goods inherent in the Internet (Atton, 2004; Barbrook 1998; 1999; 2007; Benkler, 2006, Lessig, 2006; Soderberg, 2002). In the bowels of digital capitalism was a deep socialist sharing tendency that gave expression through new technology to the truism that knowledge and the value of knowledge is rooted in social relations (Peters, 2019).

Perhaps, the concept of collective intelligence will be best developed in the near future in terms of workable models of *augmented intelligence* – cognitive augmentation – which is a complement rather than replacement for human intelligence. When we speak of the fourth knowledge revolution we are specifying the 5th generation cybernetic *episteme* driven by 5G wireless networks, quantum computing, deep learning and big data that replaces the internet with a cyber-infrastructure that includes range of new converging technologies including AI that fuse the physical, digital and biological worlds and unifying science at the nano-level. It is on its way, the signs are there and it will impact all academic disciplines and institutions, creating an unsurpassable horizon in which human beings learn to become truly digital. This will be the evolutionary cultural and symbolic system within which we experience what it is to know, communicate and learn to be human. Reminiscent of Foucault's early structuralist period, in the history of the systems of thought, it eclipses the individual knowing subject.

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About the Author

Michael A Peters is Distinguished Professor at Beijing Normal University, China, and Emeritus Professor in the Faculty of Education at the University of Illinois, Urbana-Champaign. He was previously at the university of Illinois (Urbana Champaign) as an Excellence Hire Professor (2005-2011); University of Glasgow as Research Professor (2000-2005); University of Auckland, where he held a Personal Chair (2000-2005) in addition to his position in Glasgow, and held various positions from 1992; University of Canterbury (1991-1992); University of Auckland, Auckland Teachers' College and Auckland University of Technology as lecturer and tutor during his Masters and PhD studies (1979-1984). He is the executive editor of the journal, *Educational Philosophy and Theory*, and editor of three international e-journals, *Policy Futures in Education*, *E-Learning and Digital Media*, and *Knowledge Cultures*. His interests are in education, philosophy and social policy and is a lifelong Fellow of the New Zealand Academy of Humanities and a Fellow of the NZ Royal Society. His research interests are in educational philosophy, theory and policy studies with a focus on the significance of both contemporary philosophers including Nietzsche, Wittgenstein, and Heidegger. He has published over 100 books and 500 papers in areas of poststructuralism, critical theory and analytic philosophy and their importance to the framing of educational theory and practice. He has honorary doctorates from New York State University (SUNY) and University of Aalborg (Normay).

Cultural Effects on Teacher Agency Towards National Curriculum Reform with Enhanced Autonomy in South Korea

Mina Min

Appalachian State University

Many countries have made significant education reform efforts in recent decades and found that teachers acting as change agents were the key to success. However, despite the critical role teachers play, the way they perceive, interpret, and work toward educational reform remains largely unexplored. To fill this gap, this study used sociocultural perspectives to explore what factors promote or hinder teachers from enacting reform policy in their practices in the context of South Korea. In particular, the study asked how school culture and Korean teachers' internalization of Confucian values, the national moral guideline of Korean society, influence their agency towards the reform agenda with enhanced autonomy. Six hundred and five teachers who were working at public elementary schools in Korea participated in this survey study, and multiple regression analyses were used as analytical tools. The results indicated that school culture developed by supportive principal-teacher, teacher-teacher, and teacher-student relationships promoted individual teachers' enactment of the reform policy. In addition, this study found that the level of teachers' internalization of the Confucian values of collectivism and authoritarianism influenced their agency positively and negatively, respectively. Implications for policymakers, school administrators, and scholars in facilitating teacher learning and changes with regard to educational reforms and future research suggestions are further provided.

Keywords: Teacher agency, educational reform, South Korea, sociocultural perspective, autonomy, school culture, Confucianism, elementary education

بذلت العديد من الدول جهودًا كبيرة لإصلاح التعليم في العقود الأخيرة ووجدت أن المعلمين الذين يعملون كعوامل تغيير كانوا مفتاح النجاح. ومع ذلك ، على الرغم من الدور الحاسم الذي يلعبه المعلمون ، فإن الطريقة التي ينظرون بها إلى الإصلاح التعليمي وتفسيره ويعملون عليه لا تزال غير مستكشفة إلى حد كبير. لملء هذه الفجوة ، استخدمت هذه الدراسة المنظورات الاجتماعية والثقافية لاستكشاف العوامل التي تعزز أو تمنع المعلمين من سن سياسة الإصلاح في ممارساتهم في كوريا الجنوبية. على وجه الخصوص ، سألت الدراسة كيف تؤثر الثقافة المدرسية واستيعاب المعلمين الكوريين للقيم الكونفوشيوسية ، والمبادئ التوجيهية الأخلاقية الوطنية للمجتمع الكوري ، على وكالتهم نحو أجندة الإصلاح مع تعزيز الحكم الذاتي.

شارك في هذه الدراسة الاستقصائية ستمائة وخمسة 605 مدرسين كانوا يعملون في المدارس الابتدائية العامة في كوريا ، واستخدمت تحليلات الانحدار المتعددة كأدوات تحليلية. أشارت النتائج إلى أن الثقافة المدرسية التي طورتها العلاقات الداعمة للمدرسين والمعلمين والمعلمين والطالب عززت سن المعلمين للإصلاح لسياسة الإصلاح. بالإضافة إلى ذلك ، وجدت هذه الدراسة أن مستوى استيعاب المعلمين للقيم الكونفوشيوسية في الجماعية والتسلطية قد أثر إيجابياً وسلبياً على التوالي. يتم توفير مزيد من الآثار المترتبة على واضعي السياسات ومديري المدارس والباحثين في تسهيل تعلم المعلم والتغييرات المتعلقة بالإصلاحات التعليمية والاقتراحات البحثية المستقبلية.

نجد أن في العقود الأخيرة، العديد من الدول قد بذلت جهوداً كبيرة في إصلاح التعليم، وقد اكتسبت هذه الجهود نجاحاً كبيراً. ومع ذلك، فإننا نلاحظ أن التغييرات التي طرأت على التعليم في العديد من الدول لا تزال غير كافية. وهذا يرجع إلى عدة أسباب، من بينها: ضعف التمويل، قلة الكوادر البشرية المؤهلة، والتحديات الثقافية والاجتماعية. لذلك، فإننا نرى الحاجة إلى مزيد من الجهود المبذولة لتحقيق إصلاحات حقيقية ومستدامة في التعليم.

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De nombreux pays ont consenti des efforts importants en matière de réforme de l'éducation au cours des dernières décennies et ont constaté que les enseignants, qui étaient des agents de changement, étaient la clé du succès. Cependant, malgré le rôle critique que jouent les enseignants, la manière dont ils perçoivent, interprètent et œuvrent en faveur d'une réforme de l'éducation reste largement inexplorée. Pour combler cette absence, cette étude a utilisé des perspectives socioculturelles pour explorer les facteurs qui favorisent ou empêchent les enseignants d'adopter des politiques de réforme dans leurs pratiques en Corée du Sud. L'étude cherchait à montrer en quoi la culture de l'école et l'intériorisation des valeurs confucéennes par les enseignants coréens, l'orientation morale de la société coréenne, influent sur leur libre arbitre face au programme de réformes avec une autonomie accrue. Six cent cinq enseignants travaillant dans des écoles primaires publiques en Corée ont participé à cette enquête, et des analyses de régression multiple ont été utilisées comme outils d'analyse. Les résultats ont montré que la culture de l'école développée par des relations de soutien entre directeur et enseignant, enseignant et enseignant, et enseignant et élève favorisait la promulgation de la politique de réforme en faveur des enseignants. En outre, cette étude a révélé que le niveau d'intériorisation par les enseignants des valeurs confucianistes du collectivisme et de l'autoritarisme influençait leur action de manière positive et négative. Les implications à l'attention des décideurs politiques,

des administrateurs scolaires et des universitaires dans la facilitation de l'apprentissage des enseignants et les changements concernant les réformes de l'éducation et les suggestions de recherches futures sont également fournies.

последние десятилетия многие страны предприняли значительные усилия по реформе образования и обнаружили, что учителя, выступающие в качестве посредников этих перемен, являются ключом к успеху. Однако, несмотря на важную роль учителей, то, как они воспринимают, интерпретируют и работают в направлении реформы образования, остается в значительной степени неисследованным. Чтобы восполнить этот пробел, в данном исследовании использовались социокультурные перспективы для изучения того, какие факторы способствуют или мешают учителям проводить политику реформ в своей практике в контексте Южной Кореи. В частности, в исследовании был задан вопрос о том, каким образом школьная культура и интернализация корейскими учителями конфуцианских ценностей-национального морального ориентира корейского общества-вливают на их отношение к программе реформ с усилением автономии. В этом исследовании приняли участие шестьсот пять учителей, которые работали в государственных начальных школах Кореи, и в качестве аналитических инструментов использовались методы множественного регрессионного анализа. Результаты показали, что школьная культура, развиваемая поддерживающими отношениями директор-учитель, учитель-учитель и учитель-ученик, способствовала принятию отдельными учителями политики реформ. Кроме того, это исследование показало, что уровень интернализации учителями конфуцианских ценностей коллективизма и авторитаризма влиял на их деятельность положительно и отрицательно соответственно. Помимо этого, предлагаются варианты вовлечения директивных органов, школьных администраторов и ученых в плане содействия обучению учителей и изменений в отношении образовательных реформ и будущих исследовательских предложений.

Muchos países han realizado importantes esfuerzos para llevar adelante reformas educativas significativas en las últimas décadas y han encontrado que la clave del éxito está en los docentes que actúan como agentes de cambio. Sin embargo, a pesar del rol crucial que desempeñan los docentes, la forma en que perciben, interpretan y trabajan hacia la reforma educativa sigue siendo en gran parte inexplorada. Para llenar este vacío, este estudio utilizó las perspectivas socioculturales para explorar qué factores promueven o impiden a los docentes llevar adelante las políticas de reforma en sus prácticas en el contexto de Corea del Sur. En particular, el estudio se pregunta cómo la cultura escolar y la internalización de los valores confucianos de los docentes coreanos, así como las directrices de la moral nacional de la sociedad coreana, influyen sus agencias hacia una agenda de reforma con mayor autonomía. Han participado en esta encuesta seiscientos cinco docentes que trabajaban en escuelas públicas primarias de Corea, y se utilizaron

análisis de regresión múltiple como herramienta analítica. Los resultados indicaron que la cultura escolar desarrollada por las relaciones docente-asistente principal, docente-docente y docente-alumno promueven la implementación de las políticas de reforma por parte de los docentes individuales. Además, este estudio encontró que el nivel de internalización de los valores confucianos de colectivismo y autoritarismo de los docentes, influyen en su agencia positiva y negativamente respectivamente. Se proporcionan también cuáles son las implicancias para quienes elaboran las políticas públicas, los administradores de las escuelas y académicos para facilitar el aprendizaje de los docentes así como cambios en las reformas educativas y sugerencias para futuras investigaciones.

Introduction

Schools across the country have been asked to change their practices to meet new social needs through various educational reforms. However, no matter how well-designed an educational reform policy is, it cannot achieve its purpose unless the teachers at the forefront of educational practices implement it in their classrooms (Pyhältö, Pietarinen, & Soini, 2014). Teacher agency has thus been discussed as a crucial construct in studies of educational reforms (Tao & Gao, 2017). Despite the critical role they play, the way teachers perceive, interpret, and work toward educational reforms remains little explored. Because teachers are not simply “pawns” in the process of reform (Lasky, 2005, pp. 900-901) but carry it out actively, it is important to explore the influential factors on teachers’ agency in educational reforms (Philippou, Kontovourki & Theodorou, 2014; Priestley, Edwards, Priestley, & Miller, 2012).

This study explores the influences on teachers’ agency in educational reform in South Korea from a sociocultural perspective. Although South Korea’s education system has historically been centralized, a series of national curriculum reforms since *5.31 School Reform* in 1995 have put increasing emphasis on decentralization by granting autonomy to local school districts, individual schools, and teachers (J. Lee & Park, 2014). In particular, teachers have been encouraged to exercise professional autonomy over curriculum. These policies, decentralization and curricular autonomy, were introduced to meet various social needs. For example, the standardized national curriculum is rigid, heavily emphasizes content, and does not take individual students’ varied needs and interests into account; this has been pointed to as a cause of their low confidence and enjoyment in school despite high performance on international standardized tests such as the Trends in International Mathematics and Science Study (TIMSS) and the Programme for International Student Assessment (PISA) (Meisenberg & Woodley, 2013; S. Park, 2008). Increasing diversity is another example: the changing demographics of schools in Korea led to calls for teachers to have more autonomy over curriculum so they could implement culturally relevant practices to students of varied racial, cultural, and linguistic backgrounds, rather than taking nationalistic, assimilationist approaches (Hong, 2010; Kim, Wee, & Lee, 2016).

Despite the identification of these social needs, several studies found that Korean teachers did not fully benefit from their increased autonomy and even viewed the reform agenda as ineffective (Hong & Youngs, 2016; Park & Sung, 2013). However, little is known about what factors shaped their attitudes towards this autonomy. A few studies in other countries with centralized education systems, such as Turkey, Indonesia, and Colombia, found that teachers’ choices of whether to exercise curricular autonomy were influenced by multiple factors, not just one; these ranged from

perceived self-efficacy to social traditions (Agudelo-Valderrama, 2006; Usma Wilches, 2009). Therefore, it is worth examining how cultural and personal factors affect Korean teachers' agency construction regarding the reform agenda.

Personal factors, such as teachers' knowledge and beliefs about reforms and their skill in implementing them, have been extensively explored (Ryder, Lidar, Lundqvist, & Östman, 2018). However, studies that investigated cultural factors in relation to teacher agency are rare. To this end, this study aims to explore how the cultures of the schools and societies in which teachers are employees and citizens affect their enactment of agency in the context of a national curriculum reform that promotes their curricular autonomy. Given that Confucianism is a dominant culture that is deeply rooted in Korean society and permeates citizens' daily lives, the following two questions guided this study:

1. How does school culture influence Korean elementary school teachers' agency in exercising curricular autonomy?
2. How does Korean elementary school teachers' internalization of Confucian values influence their agency in exercising curricular autonomy?

This study is significant in several ways. First, teacher agency has been recognized as an underexplored and undertheorized concept, unlike human agency (Nguyen & Bui, 2016; Priestley et al., 2012). Second, this study will advance the discourses on teacher agency, highlighting the context of decentralizing educational policies. Third, it will enhance scholars' understanding of the influence of cultural factors on teachers' agency in educational reforms. Lastly, it will provide school leaders and policymakers with an account of the conditions for teacher change and effective ways to promote it in alignment with the goals of educational reforms.

Literature Review

Sociocultural Approach to Agency

Human agency, the ability to carry out actions, is "socially distributed or shared", and mediational, meaning that mirroring social discourses plays a crucial role in facilitating it (Wertsch, Tulviste, & Hagstrom, 1993, p. 352). This view contrasts with that of psychologists, particularly in Western countries, who link agency to individualistic traditions and regard it as a physically and psychologically isolated property, calling it "atomistic agency" (Wertsch et al., 1993, p. 340). According to Wertsch et al. (1993), the cognitive processes that determine an individual's actions are heavily influenced by the collective cognitions formed in certain groups the individual belongs to. In other words, human agency is culturally and institutionally mediated, and these factors transform the "entire flow and structure of mental functions" (p. 341).

The locus of this sociocultural approach to agency can be found in Vygotsky's concepts of intramental and intermental functioning, which, in his general genetic law of cultural development, constitute an individual's cognitive processes (Wertsch et al., 1993). By correlating intramental functioning with the psychological or individual dimension of a child's development, and intermental functioning with the social or collective dimension, Vygotsky (1979) underscores the primary role of intermental functioning in the individual's mental processes; in other words, "the social dimension of consciousness is primary in time and in fact. The individual dimension of consciousness is derivative and secondary" (p. 30). On the basis of this, Wertsch et al. (1993) argue that analyzing and examining "socially shared cognition" should precede understanding

individuals' psychological development (p. 340).

In fact, some empirical studies have confirmed that sociocultural factors influence teachers' choices whether to accept changes. For example, Kwok (2014) investigated secondary school teachers' concerns about reforms that included a new interdisciplinary subject for senior-level liberal studies (LS) and argued that their reactions could be explained as results of the interactions among the innovations, institutions, and societies they were in. In a similar vein, Lasky (2005) explored secondary school teachers' experiences with and beliefs about multi-faceted reforms in Canada that emphasized accountability and centralized curriculum and reported that "political, social, economic mediational systems" affected their agency formation in relation to the reforms.

Effect of School Culture on Teachers' Agency Regarding Change and Learning

A school, as a social organization, develops its own distinctive culture by mirroring the values, assumptions, and norms shared by its members, and its teachers' identities, beliefs, and actions are deeply situated in its culture (Stolp, 1994). Some researchers exploring how teachers reacted to reform policies have claimed that school culture is a significant contextual factor that can ease or hinder teachers' change processes (Avalos, 2011; Gu & Day, 2013). Because a school's culture is shaped by the daily interactions of its members, researchers have explored how teacher-principal, teacher-teacher, and teacher-student relationships influence teacher agency regarding innovations (Ravindran, 2018; Bechtel & O-Sullivan, 2007).

First, principals are critical in creating and maintaining a supportive school culture that encourages teachers to initiate and sustain changes (Brezicha, Bergmark, & Mitra, 2015; Clifford, Behrstock-Sherratt, & Fetters, 2012). According to Price (2012), principals' efforts to nurture supportive relationships with teachers will encourage professional learning in the reform context:

One way to improve learning in schools is to focus on improving the relationships between principals and their staff that produce satisfied and committed, and therefore more effective, teachers. The benefits from trust and affective ties are central in this relationship process. (p. 69)

This evaluation of principals' support was echoed by Allen, Grigsby, and Peters (2015). They found a positive, significant association between school climate and principals' transformational leadership that focused on understanding teachers' individual needs and desires and building trusting and collaborative relationships.

Second, collegial and collaborative teacher-teacher relationships have been described as another significant factor in promoting teacher changes in the school environment. In a qualitative cross-case study with five teachers who were willing to implement Scotland's national reform agenda, "Assessment is for Learning" (AirL), Wallace and Priestley (2011) found that the relational structures formed by teachers' daily interactions with colleagues had either a "morphostatic" or a "morphogenetic" nature, inhibiting or promoting individual teacher's professional learning (p. 376). In fact, van der Heijden, Geldens, Beijaard, and Popeijus (2015) argued that teachers who were change agents were characteristically collegial and collaborated with colleagues in making changes to their daily practices. By contrast, Pitt (2010) reported that hierarchical and authoritative teacher-teacher relationships prevented new teachers from using innovative strategies they had acquired from education programs:

I had to pass my math classes off to these other teachers, and they're saying, "Well, what have you covered?" And I'm saying, "We've done these expectations from

the curriculum.” “No, what units have you covered in the textbook?”...I left two meetings in tears because I just felt like they couldn’t understand what I had done and like what I had done was worthless to them. (p. 5)

Lastly, many studies have explored the positive influences of supportive teacher-student relationships on students’ academic, emotional, and social development (Hughes, 2011). But only a few have explored how these relationships influence teachers’ changes and professional learning (Split, Koomen, & Thijs, 2011). One example is Bechtel and O’Sullivan’s (2007) study of four secondary physical education teachers. One of their participants said, “Just seeing the reaction on their faces, their want, their desire to get better fitness—that sparks me to keep going!” (p. 229). Students’ support turned out to be a key factor in empowering the teachers to make changes to their teaching practices.

Confucian Values and Koreans’ Exercise of Autonomy

Every culture has a distinctive value system and orientation demonstrating what is significant within it. Confucianism, which was adopted from China and transformed by Korea’s unique context and history, deeply permeates the daily lives of Koreans as “a national belief system . . . central to Korean thought” (T. Kim, 2009, p. 858). Confucian values have greatly influenced Koreans’ moral guidelines, behaviors, values, work practices, and organizational systems and procedures (H. Lee, 2008). As members of Korean society, Korean teachers’ agency regarding reform policies is likely to be influenced by their degree of internalization of Confucian values. Although scholars have attempted to identify the characteristics of Confucian values, no consensus has been reached in the Korean context (C. Park, 2008). In this study, collectivism and authoritarianism are considered because they are Confucian values were often associated with Korean people’s exercise of autonomy which figures in the reform agenda examined here (T. Kim, 2009).

First, this study uses Littlewood’s (1999) definition of collectivism as an “orientation that encourages individuals to see themselves as an inseparable part of the in-group; they expect and are expected to accord first priority to the views, needs and goals of the group rather than ‘stand out’ as an individual” (p. 79). The tendency of Eastern people to have a high sense of interdependence has often been discussed as a barrier to their exercise of autonomy, as that term is widely understood to be synonymous with “individualism” or “independence” (Chirkov, Ryan, Kim, & Kaplan, 2003). Littlewood (1999) refuted this point, however, claiming that the viewpoint had limited “transferability” (p. 72) to Eastern contexts, as it was grounded in Western culture, and contended that the term *autonomy* is culturally variable.

Littlewood (1999) further suggested that there are two types of autonomy: “proactive” and “reactive.” It is the former that has been implicitly and widely touted by scholars discussing autonomy without considering intercultural variations. For example, learners with proactive autonomy regulate all their actions, from setting objectives to designing activities, to achieve their objectives independently. By contrast, learners with reactive autonomy adopt their own approaches to reaching the goals set by teachers. Littlewood (1999) argued that reactive autonomy is a more appropriate way of describing people’s autonomy in Eastern countries due to their group-oriented culture. Although it has been almost two decades since he argued for understanding autonomy as a culturally variable term, empirical evidence supporting his argument for the positive role of collectivism in Eastern people’s exercise of autonomy has barely been found.

The second value, authoritarianism, is the orientation that encourages individuals to uncritically

subject themselves to authority (Duriez, Van Hiel, & Kossowska, 2005). It has been described as a critical barrier to people's exercising autonomy:

[Authoritarian views restrict] personal freedom of choice, and hamper a person's chance of developing his or her capacity to make free choices and to think independently. They nurture and engender subservient dependence and slavish submission. Authoritarianism is hostile to personal autonomy and its growth. (Ip, 2009, p. 469)

Under the Park regime (1961–1979) and the military dictatorship of General Chun (1980–1987), authoritarianism was strengthened as a political ideology and influenced all strata of society, creating a rigid and hierarchal organizational culture (M. Park, 2005). In fact, Korean scholars H. Kim and Park (2002) and Chai and Cho (2004) argued that a high level of authoritarianism hinders members of organizations from carrying out tasks that require individual autonomy, flexibility, and creativity.

In Korean education settings, most dialogues center on students' limited autonomy under authoritative teachers' practices. For instance, Shin and Crookes (2005) reported that Korean teachers' authoritative styles made it hard for students to freely discuss how they wanted to engage in their learning process and required them simply to be obedient. Likewise, Yu (2017) argued that Korean education needed to be more democratic and to move away from the current practices, in which teachers were highly authoritative, limiting students' choices of learning experiences and communicating one-directionally. However, little is known about how Korean teachers' internationalization of authoritarianism influences their agency regarding reform policy that promotes their autonomy.

Methods

Participants

Six hundred fifty teachers were asked to participate in the study. However, only 627 teachers returned the survey filled out back to the researcher. To this end, the survey response rate is 96%. Among them, 22 responses were removed from this study because of its insincere answers such as marking one answer to all questions in the survey instrument. Therefore, a total of 605 South Korean elementary school teachers' responses were considered for this study, of which 199 (32.9%) were male, 406 (67.1%) were female, and they ranged in age from 23 to 64. Fifty-two (9%) described themselves as beginning teachers (with less than two years of teaching experience), and 552 (91%) as experienced teachers (one provided no information on this). One hundred seventy one (28.3%) had positions as head teachers for either a grade or a project level, and 434 (71.7%) did not. And, 496 (82%) held undergraduate degrees, and 109 (18%) held graduate degrees, either master's or doctoral.

Data Collection

This study used non-random and convenience samples, administering paper-based survey questionnaires to in-service elementary school teachers at six locations selected on the basis of accessibility: a graduate school at one of the ten national teacher education institutions that yield large numbers of elementary school teachers, and five individual elementary schools in Daegu Metropolitan City. Although random sampling would provide a more accurate portrait of the role culture plays in teachers' agency regarding the reform policy, it is difficult to conduct a random survey of elementary school teachers in Korea because return rates would probably be low; Korean teachers are usually very busy due to tight teaching schedules and heavy administrative

workloads (Kim & So, 2014). Therefore, convenience samples were used to make sure there were sufficient participants. However, the six locations did include rural, suburban, and urban areas, representing public elementary school teachers across the country.

Development of the Survey Instrument

The survey instrument was developed in Korean and reviewed by a Korean survey expert, as the target sample's primary language was Korean. It was revised in organization and wording on the basis of his feedback and then tested separately with two South Korean in-service elementary teachers using cognitive interviewing techniques to ensure the readability of the items from the target group's perspective (Drennan, 2003; Willis, 2004). The researcher asked the teachers to think aloud as they answered each question and examined whether the questions were being interpreted and answered as intended. Notes were made on any unintended interpretations, and to resolve ambiguities the researcher discussed them with the teachers afterward and revised the items as necessary. A total of 32 items were included in the final questionnaire.

Using the 605 responses, exploratory factor analysis (EFA) and Cronbach's alpha reliability test were conducted to examine the psychometric soundness of the survey items. The EFA yielded six factors: (1) curricular autonomy exercise, (2) teacher's relationship with principal, (3) teacher's relationship with colleagues, (4) teacher's relationship with students, (5) collectivism, and (6) authoritarianism. Each factor had alphas ranging from .773 to .935. Ten items that indicated either low factor loadings (less than .50) or being loaded on multiple factors were removed, so only 26 were included in this study for regression analysis (see Table 1).

Table 1
Survey Items and EFA factor Loadings

Survey Items	Loadings
[CAE1] Setting objectives for each period in all the subjects you teach	.832
[CAE2] Adjusting time allocated for each period in all the subjects you teach	.886
[CAE3] Adding, modifying, or deleting content to the curriculum for each subject	.683
[CAE4] Developing and implementing your own teaching methods and strategies	.655
[SCP1] At my school, teachers actively interact with principals.	.736
[SCP2] At my school, the principal respects the teachers.	.874
[SCP3] At my school, the principal understands teachers' concerns well.	.821
[SCP4] At my school, the principal lets each department deal with its work autonomously once he sets general guidelines for them.	.657
[SCP5] At my school, the principal supports teachers in a way that creates an environment in which they feel comfortable working.	.772
[SCC1] At my school, teachers' behaviors do not lead to factionalism among co-workers.	.626
[SCC2] At my school, teachers do not tend to identify and exploit their co-workers' weaknesses.	.787
[SCTS1] At my school, teachers understand the characteristics of their students well.	.728
[SCTS2] At my school, teachers encourage students with words of praise.	.792
[SCTS3] At my school, teachers interact in a friendly and positive manner with their students.	.853
[SCTS4] At my school, teachers get along well with their students.	.851
[SCTS5] At my school, teachers respect students' thoughts and opinions.	.832

[COL1] I would freely put aside my own needs for the needs of the group.	.786
[COL2] My rights may be limited if this is needed for promoting the common good.	.631
[AUT1] In our society, hierarchical relationships among co-workers are essential for maintaining and managing any organization.	.699
[AUT2] All family members should respect the male head of household.	.651
[AUT3] The presence of a social class system is necessary for maintaining social order.	.891
[AUT4] Subordinate staff members should respect the decisions of their superiors as much as possible.	.708

Dependent variable

Teachers' perceptions of the extent to which they exercised autonomy over curriculum was used as the dependent variable. It was measured by four items indicating curricular areas in which teachers had professional autonomy; for example, "setting objectives for each period in all the subjects you teach" and "developing and implementing your own teaching methods and strategies." The items were scored ordinally on a four-point Likert-type scale, from 1 (very low) to 4 (very high). Their mean scores were calculated and used as the dependent variable "Curricular autonomy exercise" in the analysis.

Independent variables

Three variables for school culture and two for the Confucian values were examined as independent variables. Five, two, and five items respectively were used for the school-culture variables capturing teachers' relationships with principals, colleagues, and students. Two and four items were used, respectively, for collectivism and authoritarianism. A four-point Likert type scale from 1 (strongly disagree) to 4 (strongly agree) was used for each item, and the mean scores were calculated for each and used as the independent variables.

Control variables

This study included a set of control variables on the participating teachers' demographic information. All of these were dichotomous. Gender was coded as 0 for male and 1 for female; position as 0 for non-head teacher and as 1 for head teacher; teaching experience as 0 for beginning teachers (<2 years' experience) and 1 for experienced teachers; and educational attainment as 0 for undergraduate degrees only and 1 for graduate degrees.

Table 2
Descriptive Statistics by Variables and Items

Variables	Obs.	Mean	Std. dev.	Min	Max	Cronbach's alpha
Dependent variable						
Curricular autonomy exercise (CAE)	605	3.10	.65	1	4	.862
CAE1		3.06	.77	1	4	
CAE2		3.15	.76	1	4	
CAE3		2.92	.83	1	4	
CAE4		3.28	.74	1	4	
Independent variables						
School culture fostered by teachers' relationship with						
Principals (SCP)	605	3.18	.70	1	4	.906
SCP1		3.10	.82	1	4	
SCP2		3.33	.75	1	4	
SCP3		3.12	.83	1	4	
SCP4		3.14	.87	1	4	
SCP5		3.22	.82	1	4	.822
Colleagues (SCC)	605	3.42	.69	1	4	
SCC1		3.56	.65	1	4	
SCC2		3.45	.73	1	4	
Students (SCTS)	605	3.60	.48	2	4	.935
SCTS1		3.60	.525	1	4	
SCTS2		3.59	.532	2	4	
SCTS3		3.60	.550	2	4	
SCTS4		3.61	.522	2	4	
SCTS5		3.60	.694	1	4	
Confucian values						
Collectivism (COL)	605	2.86	.58	1	4	.773
COL1		2.86	.63	1	4	
COL2		2.86	.66	1	4	
Authoritarianism (AUT)	605	2.50	.67	1	4	.840
AUT1		2.56	.76	1	4	
AUT2		2.46	.88	1	4	
AUT3		2.43	.82	1	4	
AUT4		2.55	.772	1	4	
Control variables						
Gender (0=male, 1=female)	605	.67	.47	0	1	
Position (0=non-head, 1=head teacher)	605	.28	.45	0	1	
Teaching experience (0=beginning, 1=experienced teacher)	604	.91	.28	0	1	
Educational attainment (0=undergraduate, 1=graduate level degrees)	605	.18	.38	0	2	

Data Analysis

The responses from 605 hard-copy questionnaires were entered into an Excel file and converted into a Microsoft SPSS 21 file to analyze the distributional characteristics of the items and run ordinary least squares (OLS) regression analyses. For the descriptive properties, the frequency analysis built into SPSS 21 was employed. OLS regression analysis in five models was performed to systematically examine the effects of school culture and Confucian values on the teachers' exercise of curricular autonomy, and there were no missing data (Yang, 2016).

Results

The multiple regression results indicated that teacher's exercise of their professional autonomy over curriculum was predicted by both school culture and Confucian values. Models 1 and 2 included the three constructs of school culture (SCP, SCC, & SCTS) and the two constructs of Confucian values (COL & AUT), respectively. In Model 1, CAE was explained by SCP, SCC, and SCTS with an R^2 of .121. Increases of one unit in SCP and SCC led to increases of .098 and .103 in CAE, at an alpha level of .05. An increase of one unit of SCTS led to an increase of .284 in CAE at an alpha level of .001. This indicates that teachers' relationships with students were more important to their exercise of curricular autonomy than those with principals and colleagues, and their relationships with colleagues were more influential than those with principals.

The analysis of the Model 2 revealed that of the two Confucian values, only COL influenced CAE in a statistically significant way, explaining about 5.4% of its variance; AUT was not significantly related to the CAE. A one-unit increase in COL led to an increase of .266 in CAE. This suggests that supportive school cultures might have more influence on teachers' exercise of curricular autonomy than their internalization of Confucian values. It also supports calling for a redefinition of the term "autonomy" in a broader way that does not limit its meaning to independence and isolation.

Model 3 was designed to determine the influence of school culture on teachers' exercise of curricular autonomy when background variables (gender, position, teaching experience, educational attainment) were controlled for. The results indicated similar effects. Teachers' supportive relationships with students had the strongest effects on their practices, as an increase of one unit in SCTS led to an increase of .283 in exercise of curricular autonomy exercise at an alpha level of .001. In Model 3, however, the effect of supportive principals turned out to be stronger than that of supportive colleagues: increases of one unit in SCP and SCC led to the increases of .100 and .098 in exercise of curricular autonomy exercise, at an alpha level of .05.

Model 4 was used to examine the effects of the two Confucian values on teachers' exercise of curricular autonomy when their demographic variables were controlled for. It showed similar results to Model 2. A one-unit increase in internalization of collectivism led to an increase in exercise of curricular autonomy at alpha level .001, but internalization of authoritarianism was not significantly related to teachers' practices.

Lastly, Model 5 included all independent and control variables. All three of the school culture variables (SCP, SCC, and SCTS) and the Confucian value of COL remained significant. The coefficient of SCP increased from .100 to .109, that of SCC remained the same at .098, and the coefficients of SCTS and COL decreased, from .283 to .244 and from .255 to .202, respectively. Interestingly, in Model 5, which did control for background variables, AUT was negatively significant at an alpha level of .05: an increase of one unit in AUT led to a reduction in curricular autonomy exercise. This suggests that teachers with greater internalization of authoritarianism

were less likely to exercise curricular autonomy.

Table 3
Estimated coefficient of OLS regression model predicting teacher's curricular autonomy exercise

	Model 1	Model 2	Model 3	Model 4	Model 5
Control variable					
Gender			.024 (.057)	.120 (.053)	.109 (.042)
Position			.041 (.059)	.092 (.057)	.098 (.045)
Teaching experience			-.058 (.091)	-.048 (.090)	-.041 (.091)
Educational Attainment			-.045 (.067)	-.055 (.065)	-.054 (.066)
School culture					
Principal	.098* (.042)		.100* (.042)	.	.109* (.042)
Colleague	.103* (.045)		.098* (.045)		.098* (.045)
Student	.284*** (.066)		.283*** (.069)		.244*** (.068)
Confucian values					
Collectivism		.266*** (.048)		.255*** (.048)	.202*** (.049)
Authoritarianism		-.040 (.042)		-.037 (.042)	-.109* (.043)
Constant	1.417*** (.193)	2.373*** (.129)	1.465*** (.208)	.243*** (.149)	1.269*** (.219)
N	605	605	605	605	605
R ²	.121	.054	.123	.066	.148

*p<.05, **p<.01, ***p<.001, standard errors in parentheses

Discussion

This study examined how school culture, as formed by teachers' relationships with their principals, colleagues, and students, and the dominant culture of the society where they live influenced their agency regarding the Korean national curriculum reform agenda, which enhanced their autonomy over curricular decisions. As Wertsch et al. (1993) noted, Korean elementary school teacher's agency regarding the reform agenda was influenced by both.

These findings confirm previous arguments that principals and colleagues are critical in promoting teachers' change and learning in relation to the reform agenda (Allen et al., 2015; Brezicha et al., 2015; Clifford et al., 2012; Pitt, 2010; Wallace & Priestley, 2011; van der Heijden et al., 2015).

However, this study extends the knowledge of teachers' agency regarding the reform policy by illustrating the importance of nurturing supportive teacher-student relationships. The effects of these relationships on teacher's agency were significant at the .001 level for models 1, 3, and 5, whereas the positive effects of teacher-principal and teacher-teacher relationships were significant at the .05 level.

This is a valuable finding to the fields of teacher agency and educational change, given that teacher-student relationships have not been explored much as factors on teachers' enactment of reform policies in their practices. As Bechtel and O'Sullivan (2007) implied in their studies, this finding can be explained by the increased self-efficacy teachers' gain from knowing their students' unique needs and making changes successfully through close and supportive interactions with their students. This finding is also supported by Bandura's (1997) accounts of the sources of improved self-efficacy. He stated that one's self-efficacy can be increased when one takes pleasure in a task (affective state) or receives positive comments or feedback from others (social and verbal persuasion). By building and nurturing supportive relationships with their students, the participating Korean elementary school teachers may have received more affective, social, and verbal persuasions than those who did not, and their increased self-efficacy might have empowered them to enact the reform policy in their educational practices.

The Confucian values of collectivism and authoritarianism influenced teachers' agency positively and negatively, respectively. First, teachers who valued the goals of the group more than their personal interests were more likely to exercise their curricular autonomy than others. This finding can be interpreted as follows: teachers who are inclined to accede to the goals of their affiliated group—whether nation, educational district, or school—might exercise more autonomy than others because doing so promotes this common goal and provides a strong sense of belonging, even though those teachers might not personally agree with the goal.

This finding supports Littlewood's (1999) argument that autonomy is not a "culture-free term" (p. 73) and that interpreting it on the basis of Western individualist culture is not appropriate in the Eastern context. The study demonstrates that high group-orientation promotes individual teachers' exercise of autonomy in Korea. Thus, it can be argued that the concept of autonomy needs to be more broadly defined by considering cultural differences among societies. In Eastern cultures that values "interdependence" more than "independence," his terminology of "reactive autonomy" might better explain how Korean elementary school teachers exercise their curricular autonomy than "proactive autonomy." Although a series of reform policies have increasingly emphasized the importance of teachers' professional discretion over curricular decisions, their proactive autonomy has remained limited because the policy provided specific guidelines on how to use their curricular autonomy. However, their exercise of reactive autonomy was supported by the teacher's group-orientations.

Second, teachers with higher internalization of authoritarianism were less likely to exercise curricular autonomy. This might be because when teachers have limited opportunities for criticism and are required to follow their superiors' decisions on work-related matters, they have fewer chances to think about using their own discretion or benefiting from the exercise of autonomy. Another possibility is that these teachers perceived curriculum as a sort of Bible because it was developed by the top authority, the MOE, and they have limited chances to engage in social critique of its work.

Conclusion

This study provides educational scholars, school administrators, and policy makers with valuable theoretical and practical implications by indicating the applicability of Wertsch and colleagues' (1993) sociocultural perspectives on agency in the context of Korean national curriculum reform. First, the findings suggested that developing school cultures with supportive relationships among their members, including principals, colleagues, and students, is critical to promoting teachers to be active change agents regarding the reform policy. To this end, it is recommended that principals make efforts to have frequent supportive individual interactions with teachers by sharing visions and goals for their schools that are aligned with the reform agenda. In addition, school administrators must facilitate supportive cultures among the teacher communities in their schools in a way that helps teachers develop a sense of collective responsibility for enacting the reform agenda in their classrooms. On top of that, teachers need opportunities to build rapport and learn more about their students' needs. These will improve their self-efficacy for enacting the reform agenda and exercising their curricular autonomy effectively, ultimately empowering them to implement it in their classrooms.

In addition, this study suggests that teacher agency regarding the reform policy must be understood from a macro-level cultural perspective, by considering the dominant values in the society. In particular, given that this study demonstrated that a strong sense of collectivism promoted individual teachers' exercise of autonomy, it calls for scholar to define and discuss the term "autonomy" from broader perspectives that consider cultural differences, moving beyond its definition grounded in Western individualism. Moreover, cultivating more democratic and less authoritative cultures and respecting teachers' professional authority over educational practices will encourage teachers' exercise of curricular autonomy.

Despite its significant and valuable findings, this study is subject to several limitations. Although some demographic factors were controlled for, others such as school size, grade level, and subject area, might also affect the associations between the cultural factors examined and teachers' agency regarding the reform agenda. In a similar vein, information on students, such as academic performance or socioeconomic status, could influence the associations. In future studies, qualitative research using observation and interviews might provide a more accurate and comprehensive picture of how teachers exercise their agency regarding the reform agenda and of the reasons the cultural factors examined were positively or negatively related to it. This could overcome the limitations of surveys using self-reported responses. Lastly, investigations of the effects of student demographics and subjects and grade levels taught should be undertaken to obtain more comprehensive and accurate pictures of teacher agency in this context.

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About the Author

Mina Min (minm@appstate.edu) is an Assistant Professor of Elementary Education at Appalachian State University. Her scholarship focuses on teacher agency, motivation, and change, teaching effectiveness, educational reform, comparative and global education, sociocultural perspectives, and pre- and in-service teachers' dispositions and practices for promoting social justice.

Educating Children about Humane Values: A Case Study in Lahore, Pakistan

Sunnya Khan

University of Toronto, Ontario Institute for Studies in Education (OISE), Canada

Humane education (HE) encompasses a curricular framework focusing primarily on issues of ecological sustainability, animal welfare, human rights, citizenship and social justice. The ideology behind humane education is to incur social change and combat contemporary challenges through the principle of interconnectedness between environmental ethics, animal welfare and human rights. A holistic approach is necessary in responding to the different forms of human, animal and environmental injustices prevalent today which appear to be interconnected in one way or another. Such a holistic approach can be practiced by adopting values such as kinship and compassion towards animals and getting rid of utilitarian perspectives which would ultimately benefit the causes of social justice and ecological sustainability. HE employs a critical theory perspective whereby students are empowered to be critical thinkers in order to induce personal and social transformation. There is a desperate need for humane education in Pakistan which inspires restorative and sustainable change on behalf of all humans, animals and Earth. This study informs the existing literature by employing a multi-method qualitative design to answer the following questions: (i) What are the perspectives of primary teachers in Pakistan's private schools around the notion of humane education and its underlying philosophy of using education as a tool for transformation and social activism? (ii) What changes can be made to the existing pedagogy in order to provide a holistic approach towards transformative education which includes critical thinking and reflection amongst students to raise planetary consciousness? To study this, nine primary teachers were selected through purposeful sampling from three different private schools in Lahore, Pakistan. The teachers were all interviewed and asked to draw and illustrate their perceptions (inspired by Anishnaabe symbol-based reflection) regarding humane education for the purposes of triangulation and more rounded knowledge. Results of this study propose the inclusion of humane education in classrooms through animal portraiture (which allows animals to be viewed in a humanistic frame) and conservation photography (wildlife) where students engage in activities which require them to take pictures (of animal's expressions, behaviors and needs or any other environmental photography), and then share their affective experiences with the class to necessitate knowledge production in the shape of a visual product followed by critical reflection and discourse. Animals need to be represented in such varied and holistic ways where they are no longer a victim of othering and the

status quo is disrupted resulting in liberation pedagogy which is what Pakistan requires. The potential advantages of using diverse pedagogical tools such as the incorporation of multimedia and diverse art forms in classrooms should not be undermined as they can attend to the development of the whole child including the mental, physical and emotional. The results of this study may help educators, researchers and policymakers understand how to conceptualize and incorporate this character building education which facilitates the full development of students by cultivating all their capacities as human beings in an interdependent world potentially resulting in the elimination of current epidemics such as species extinction, animal cruelty/exploitation, and environment degradation.

Keywords: humane education; holistic education; critical pedagogy; animal rights; animal portraiture; arts-informed research method; Pakistan

يشمل التعليم الإنساني (HE) إطارًا منهجيًا يركز في المقام الأول على قضايا الاستدامة البيئية، رعاية الحيوان، وحقوق الإنسان بالإضافة إلى المواطنة والعدالة الاجتماعية. تتمثل الأيديولوجية الكامنة وراء التعليم الإنساني في إحداث التغيير الاجتماعي ومكافحة التحديات المعاصرة من خلال مبدأ الترابط بين أخلاقيات البيئة ورفاهية الحيوان وحقوق الإنسان. من الضروري اتباع منهج كلي في الاستجابة لمختلف أشكال الظلم البشري والحيواني والبيئي السائد اليوم والذي يبدو أنه مترابط بطريقة أو بأخرى. يمكن ممارسة مثل هذا المنهج الشمولي من خلال تبني قيم مثل القرابة والرحمة تجاه الحيوانات والتخلص من المنظورات النفعية التي من شأنها أن تستفيد في نهاية المطاف من أسباب العدالة الاجتماعية والاستدامة البيئية. يتم توظيف منظور نظريًا للنقد يتم بموجبه تمكين الطلاب من أن يكونوا مفكرين نقديين للبحث على التحول الشخصي والاجتماعي. هناك حاجة ماسة إلى التعليم الإنساني في باكستان والذي يلهم التغيير التصالحي والمستدام نيابة عن جميع البشر والحيوانات والأرض. تُعلم هذه الدراسة الأدبيات الموجودة من خلال استخدام تصميم نوعي متعدد الأساليب للإجابة على الأسئلة التالية: (1) ما هي وجهات نظر معلمي المرحلة الابتدائية في المدارس الخاصة في باكستان حول فكرة التعليم الإنساني وفلسفته الأساسية المتمثلة في استخدام التعليم كأداة للتحول والنشاط الاجتماعي؟ (ii) ما هي التغييرات التي يمكن إجراؤها على علم أصول التدريس الحالي من أجل توفير نهج كلي تجاه التعليم التحويلي الذي يتضمن التفكير الناقد والتفكير بين الطلاب لرفع الوعي الكوكبي؟ لدراسة ذلك، تم اختيار تسعة مدرسين ابتدائيين من خلال أخذ عينات هادفة من ثلاث مدارس خاصة مختلفة في لاهور، باكستان. تمت مقابلة جميع المعلمين وطلب منهم رسم وتوضيح تصوراتهم) مستوحاة من التفكير القائم على رموز Anishnaabe فيما يتعلق بالتعليم الإنساني لأغراض التثليل والمعارف الأكثر تقارباً. تقترح نتائج هذه الدراسة إدراج التعليم الإنساني في الفصول الدراسية من خلال تصوير الحيوانات (والذي يسمح بعرض الحيوانات في إطار إنساني) وتصوير الحفظ (الحياة البرية) حيث يشارك الطلاب في الأنشطة التي تتطلب منهم النقاط صور (من تعبيرات الحيوان، وسلوكياته والاحتياجات أو أي تصوير بيئي آخر)، ثم مشاركة تجاربهم العاطفية مع الفصل لتلزم إنتاج المعرفة في شكل منتج بصري يتبعه انعكاس ومناقشة الخطاب. يجب تمثيل الحيوانات بمثل هذه الطرق المتنوعة والشمولية حيث لم تعد ضحية للآخرين ويتعطل الوضع القائم مما يؤدي إلى تحرير علم أصول التدريس وهو ما تطلبه باكستان. لا ينبغي تفويض المزايا المحتملة لاستخدام أدوات تعليمية متنوعة مثل دمج الوسائط المتعددة وأشكال الفن المتنوعة في الفصول الدراسية لأنها يمكن أن تهتم بنمو الطفل كله بما في ذلك العقلية والجسدية والعاطفية. قد تساعد نتائج هذه الدراسة المعلمين والباحثين وواضعي السياسات في فهم كيفية وضع مفهوم ودمج تعليم بناء الشخصية هذا الذي يسهل التطوير الكامل للطلاب من خلال تنمية جميع قدراتهم كبشر في عالم مترابط يحتمل أن يؤدي إلى القضاء على الأوبئة الحالية كانقراض الأنواع، والقسوة / الاستغلال الحيواني، وتدهور البيئة.

人道教育 (HE) 包含了一个课程框架, 主要侧重于生态可持续性, 动物福利, 人权, 公民身份和社会正义等问题。人文教育背后的意识形态是通过环境伦理, 动物福利和人权之间的相互联系原则来引发社会变革和应对当代挑战。在应对当今普遍存在的不同形式的人类, 动物和环境不公正现象时, 必须采取整体方法, 这种不公正形式似乎以某种方式相互联系着。这种整体方法可以通过采用诸如亲属关系、对动物的同情, 以及摆脱功利主义观点等价值观来实现, 这些观点最终将有益于社会正义和生态可持续性。人道教育采用批判理论的视角, 让学生有能力成为批判的思考者, 以促进个人和社会转型。巴基斯坦迫切需要人道教育, 以此促进为人类、动物和地球带来的恢复性和可持续的变革。本研究基于已有文献, 通过采用多方法定性设计来回答以下问题: (i) 巴基斯坦私立学校的小学教师对人文教育概念及其以教育为转型和社会活动的工具的基本理念的观点是什么? (ii) 可以对现有的教学法做出哪些改变, 以便为变革性教育提供整体方法, 包括培养批判性思考和学生反思以提高人类与星球相互依赖的意识? 为了研究这一点, 本研究从巴基斯坦拉合尔的三所不同私立学校, 通过有目的的抽样选出了九名小学教师。所有教师都接受了采访, 并被要求绘制和说明他们对于关于人文教育以达到验证和更全面的知识的看法 (受Anishnaabe基于符号的反思的启发)。这项研究的结果表明并倡议, 通过课堂中的人道教育, 包括通过动物肖像 (允许动物在人道框架中被观测) 和保护摄影 (野生动物), 学生从事需要他们拍照的活动 (动物的表情、行为, 和需要或任何其他环境摄影), 然后与课堂分享他们的情感体验, 以便以视觉产品的形式进行知识生产, 然后进行批判性反思和讨论。动物需要以各种各样的方式进行表现, 它们不再是受害者, 如此一来, 现状被破坏, 促进了解放的教育学, 而这正是巴基斯坦所需要的。使用多样化的教学工具 (例如在课堂中融入多媒体和多样化的艺术形式) 的潜在优势不应该被低估, 因为他们关注整个孩子的发展, 包括精神, 身体和情感。这项研究的结果可以帮助教育工作者, 研究人员和政策制定者, 理解如何概念化和融入这种性格建设教育, 通过在相互依存的世界中培养他们作为人类的潜能, 促进学生的全面发展, 从而可能有助于消除当前的普遍存在的问题, 比如物种灭绝, 动物残忍/剥削, 和环境退化。

L'éducation humaine (EH) englobe un cadre de programme axé principalement sur les questions de durabilité écologique, de bien-être animal, de droits de l'homme, de citoyenneté et de justice sociale. L'idéologie de l'éducation humaine est de susciter un changement social et de lutter contre les défis contemporains grâce au principe d'interdépendance entre l'éthique de l'environnement, le bien-être des animaux et les droits de l'homme. Une approche holistique est nécessaire pour répondre aux différentes formes d'injustices humaines, animales et environnementales prévalant aujourd'hui et qui semblent être interconnectées d'une manière ou d'une autre. Une telle approche holistique peut être mise en pratique en adoptant des valeurs telles que la parenté et la compassion envers les animaux et en se débarrassant des perspectives utilitaires qui profiteraient finalement aux causes de la justice sociale et de la durabilité écologique. EH utilise une perspective

théorique critique dans laquelle les étudiants sont habilités à être des penseurs critiques afin d'induire une transformation personnelle et sociale. Au Pakistan, il existe un besoin criant d'éducation humaine qui inspire un changement réparateur et durable de la part de tous les êtres humains, de tous les animaux et de la Terre. La présente étude s'appuie sur la littérature existante en utilisant un modèle qualitatif à plusieurs méthodes pour répondre aux questions suivantes: (i) Quelles sont les perspectives des enseignants du primaire dans les écoles privées du Pakistan autour de la notion d'éducation humaine et de sa philosophie sous-jacente qui utilisent l'éducation comme outil pour la transformation et l'activisme social? (ii) Quels changements peuvent être apportés à la pédagogie existante afin de fournir une approche holistique de l'éducation transformatrice qui inclut une réflexion critique et une réflexion parmi les étudiants pour élever la conscience planétaire? Pour étudier cela, neuf enseignants du primaire ont été sélectionnés à partir d'un échantillon déterminé de trois écoles privées différentes à Lahore, au Pakistan. Les enseignants ont tous été interrogés et invités à dessiner et illustrer leurs perceptions (inspirées de la réflexion basée sur les symboles anishnaabe) concernant l'éducation humaine dans un but de triangulation et de connaissances plus complètes. Les résultats de cette étude proposent l'inclusion d'une éducation humaine dans les salles de classe par le biais du portrait d'animal (qui permet de visualiser les animaux dans un cadre humaniste) et de la photographie de conservation (faune) où les élèves se livrent à des activités qui les obligent à prendre des photos (les expressions, les comportements des animaux et leurs besoins ou toute autre photographie environnementale), puis partager leurs expériences affectives avec la classe pour nécessiter la production de connaissances sous la forme d'un produit visuel suivi d'une réflexion critique et d'un discours. Les animaux doivent être représentés de manière aussi variée et holistique lorsqu'ils ne sont plus victimes de différence et que le statu quo est perturbé, ce qui se traduit par une pédagogie de la libération, comme l'exige le Pakistan. Les avantages potentiels de l'utilisation de divers outils pédagogiques, tels que l'incorporation de multimédias et de différentes formes d'art dans les salles de classe, ne doivent pas être compromis, car ils peuvent contribuer au développement de l'enfant dans son ensemble, notamment aux niveaux mental, physique et émotionnel. Les résultats de cette étude pourraient aider les éducateurs, les chercheurs et les décideurs à comprendre comment conceptualiser et intégrer cette éducation au développement du caractère qui facilite le développement complet des élèves en développant toutes leurs capacités en tant qu'êtres humains dans un monde interdépendant, susceptible de permettre l'élimination des fléaux actuelles telle que l'extinction d'espèces, la cruauté envers les animaux / l'exploitation et la dégradation de l'environnement.

Гуманное образование (ГО) включает в себя учебную программу, в которой основное внимание уделяется вопросам экологической устойчивости, благополучия животных, прав человека, гражданства и социальной справедливости. Идеология, лежащая в основе гуманного образования, заключается в социальных изменениях и борьбе с современными трудностями на основе принципа взаимосвязи между этикой окружающей

среды, благосостоянием животных и правами человека. Необходим целостный подход к реагированию на различные формы существующей сегодня несправедливости в отношении человека, животных и окружающей среды, которые, как представляется, так или иначе взаимосвязаны. Такой целостный подход может быть реализован путем принятия таких ценностей, как родство и сострадание к животным, а также избавление от утилитарных взглядов, которые в конечном счете способствовали бы социальной справедливости и экологической устойчивости. В гуманном образовании используется критическая теория, в соответствии с которой студенты имеют право мыслить критически, чтобы стимулировать личностные и социальные преобразования. В Пакистане существует острая необходимость в гуманном образовании, которое способствует восстановительным и устойчивым изменениям в интересах всех людей, животных и Земли. Это исследование использует существующую литературу и мультиметодный качественный дизайн, чтобы ответить на следующие вопросы: (i) Каковы перспективы учителей начальных классов в частных школах Пакистана вокруг понятия гуманного образования и лежащей в его основе философии использования образования в качестве инструмента для трансформации и социальной активности? (ii) Какие изменения могут быть внесены в существующую педагогику для обеспечения целостного подхода к преобразовательному образованию, включающего критическое мышление и рефлексию среди учащихся в целях повышения планетарного сознания? Для изучения этого вопроса девять учителей начальных школ были отобраны путем целенаправленной выборки из трех различных частных школ в Лахоре, Пакистан. Все учителя были опрошены, и им было предложено нарисовать и проиллюстрировать свое представление (вдохновленное размышлениями Анишнабе о символах) относительно гуманного образования в целях триангуляции и более округленных знаний. Результаты этого исследования предлагают включить гуманное образование в классах через изображение животных (что позволяет рассматривать животных в гуманистической рамке) и природоохранной фотографии (дикой природы), где студенты занимаются деятельностью, которая требует от них фотографировать (выражения животных, поведения и потребностей или любой другой фотографии окружающей среды), а затем делиться своим эмоциональным опытом в классе с дальнейшим производством знаний в виде визуального продукта с последующим критическим осмыслением и дискурсом. Животные должны быть представлены таким разнообразным и целостным образом, когда они больше не являются жертвами других и статус-кво нарушается, что приводит к освободительной педагогике, чего требует Пакистан. Потенциальные преимущества использования различных педагогических инструментов, таких, как использование мультимедийных средств и различных форм искусства в классах, не должны быть подорваны, поскольку они могут способствовать развитию всего ребенка, включая умственное, физическое и эмоциональное. Результаты этого исследования могут помочь преподавателям, исследователям и политикам понять, как концептуализировать и включить это образование по формированию

характера, которое способствует всестороннему развитию учащихся путем развития всех их способностей как людей во взаимозависимом мире, что потенциально может привести к ликвидации нынешних эпидемий, таких как вымирание видов, жестокое обращение/эксплуатация животных и деградация окружающей среды.

La educación humana (EH) abarca un marco curricular que se centra primariamente en temas de sostenibilidad ecológica, bienestar animal, derechos humanos, ciudadanía y justicia social. La ideología detrás de la educación humana es incurrir en cambios sociales y combatir los desafíos contemporáneos a través del principio de interconexión entre la ética ambiental, el bienestar animal y los derechos humanos. Es necesario un enfoque holístico para responder a las diferentes formas de injusticia humana, animal y ambiental que prevalecen en la actualidad y que parecen estar interconectadas de una u otra forma. Este enfoque holístico puede practicarse adoptando valores como el parentesco y la compasión hacia los animales y deshaciéndose de las perspectivas utilitarias que en última instancia beneficiarían las causas de la justicia social y la sostenibilidad ecológica. La EH emplea una perspectiva de la teoría crítica en la que los estudiantes son empoderados para ser pensadores críticos para inducir la transformación personal y social. Hay una desesperada necesidad por la educación humanitaria en Pakistán que inspire un cambio restaurativo y sostenible en nombre de todos los seres humanos, los animales y la Tierra. Este estudio informa sobre la literatura existente empleando un diseño cualitativo de métodos múltiples para responder las siguientes preguntas: (i) ¿Cuáles son las perspectivas de los maestros de primaria en las escuelas privadas de Pakistán en torno a la noción de educación humana y su filosofía subyacente de usar la educación como herramienta para la transformación y el activismo social? (ii) ¿Qué cambios se pueden hacer a la pedagogía existente para proporcionar un enfoque holístico hacia la educación transformadora que incluya el pensamiento crítico y la reflexión entre los estudiantes para elevar la conciencia planetaria? Para estudiarlo, se seleccionaron nueve maestros de primaria a través de muestreos intencionados de tres escuelas privadas diferentes en Lahore, Pakistán. Todos los maestros fueron entrevistados y se les pidió que dibujaran e ilustraran sus percepciones (inspiradas por la reflexión basada en los símbolos de Anishnaabe) con respecto a la educación humana para los fines de triangulación y conocimientos más completos. Los resultados de este estudio proponen la inclusión de la educación humana en las aulas a través del retrato de animales (que permite ver a los animales en un marco humanístico) y la fotografía de conservación (vida silvestre) donde los estudiantes se comprometan en actividades que requieren que tomen fotografías (de las expresiones y comportamientos de los animales y de las necesidades o cualquier otra fotografía del medio ambiente), y luego compartan sus experiencias afectivas con la clase para requerir la producción de conocimiento en la forma de un producto visual seguido de reflexión crítica y discurso. Los animales deben estar representados de maneras variadas y holísticas de forma tal que ya no sean víctimas de alteridad y el status quo sea interrumpido resultando en una pedagogía de la liberación, que es lo que requiere Pakistán. Las ventajas potenciales

de utilizar diversas herramientas pedagógicas, como la incorporación de multimedia y de diversas formas de arte en las aulas, no deben verse afectadas, ya que pueden ayudar al desarrollo del niño en su totalidad, incluido el mental, el físico y el emocional. Los resultados de este estudio pueden ayudar a los educadores, investigadores y formuladores de políticas públicas a entender cómo conceptualizar e incorporar esta educación de construcción de carácter que facilita el desarrollo completo de los estudiantes al cultivar todas sus capacidades como seres humanos en un mundo interdependiente que puede resultar en la eliminación de las epidemias actuales, tales como la extinción de especies, la crueldad/explotación animal, y la degradación ambiental.

Introduction

What is humane education? Humane education (HE) encompasses an interdisciplinary curricular framework focusing primarily on issues of ecological sustainability/environmental preservation, animal welfare, human rights, citizenship and social justice so that students are provided with sufficient knowledge and the required tools to become conscientious choice-makers and engaged change-makers for a healthier world for people, animals and the environment (Weil, 2016). The ideology behind humane education is to incur social change and combat contemporary cultural challenges through the principle of interconnectedness between environmental ethics, animal welfare and human rights (Institute for Humane Education, 2018). According to Weil (2016), HE focuses on developing sustainable energy, food, transportation, production, construction, ending poverty, ensuring everyone has equal rights, resolving conflicts without violence, treating people and nonhuman animals with respect and compassion, slowing the rate of extinction and restoring ecosystems through schooling.

Humane education falls under the holistic genre due to its underlying philosophy of interconnectedness and interdependence of all living things (Eadie, 2011). Oakley (2011) affirms that a holistic approach is necessary in responding to the different forms of human, animal and environmental injustices prevalent today which appear to be interconnected in one way or another. Kahn and Humes (2009) recommend practicing this holistic approach by adopting values such as kinship and compassion towards animals and getting rid of utilitarian perspectives which would ultimately benefit the causes of social justice and ecological sustainability.

According to the Institute for Humane Education (2018), the educators of HE must enable their students to (i) *Acquire knowledge* – by preparing them to be effective and motivated researchers who are able to gather accurate information about interconnected global challenges and who can distinguish between facts and opinions/conjectures; (ii) *Think deeply* – by aiding in the development of their critical, creative, strategic, and systems-thinking skills; (iii) *Make compassionate and responsible choices* – by cultivating curiosity and appreciation for nature, empathy for people and animals and a commitment to doing the most good and least harm; and (iv) *Focus on solutions* – by providing opportunities to collaboratively engage in critical thinking and solutions-focused initiatives (implementing ideas after assessing and improving upon them).

HE practitioners are also referred to as social activists who embody the values of society and develop into advocates of personal and social transformation to create a just, humane and sustainable world (Weil, 2004; Institute for Humane Education, 2018). The philosophy behind humane education, whether it is to inspire global philanthropy, social activism or individual

responsibility, is that the more knowledge students have about being kind, just and socially aware citizens, the better equipped they will be to develop positive interpersonal relationships with all living beings.

“Compassion, in which all ethics must take root, can only attain its full breadth and depth if it embraces all living creatures and does not limit itself to mankind” -Albert Schweitzer, Nobel Peace Prize Address, 1952

Bekoff (2013) states that humane education must include respect, compassion and love for nonhuman animals. Educators, who are viewed as agents of change in the HE pedagogy, focus on cultivating skills of compassion, consciousness-raising, better decision/choice-making and empathy in their students for humans as well as nonhuman animals. There is a shift from “what” to “how” while teaching students about their interpersonal relationships with all things living in order to stimulate critical reflection and research skills. HE assignments are thought-provoking, involve the “expressive arts” (to prepare students to come up with creative solutions to existing problems) and are designed to help students develop their research skills, thinking capacities, collaborative abilities, solutionary ideas and to achieve their personal goals as well as those of their schools and communities (Weil, 2016, p. 86).

Currently HE, especially one of its core principles regarding animal welfare, is seen to be absent in the national curriculum of Pakistan which is the problem that inspired this study. Animal abuse is rising at an alarming rate in Pakistan with only a handful of people and non-profit organizations advocating for this marginalized group. The laws for animal protection are outdated and people are recurrently seen to get away with grotesque crimes against animals. The locals are seen to be apathetic towards the mass poisoning and shooting by residential societal authorities and government officials to control stray animal population. While neutering or spaying offers a humane alternative to this problem, the negligence towards adopting this approach is a testament in itself towards the attitudes of indifference when it comes to animal rights. The current law in Pakistan regarding animal welfare referred to as the “Prevention of Cruelty to Animals Act” was established in 1890 and is a remnant of the British colonial system which is a poignant reminder towards the need for updating animal rights laws. The fine regarding animal cruelty crimes is as low as 50 Pakistani Rupees (\$0.38 /US 38 cents) which is a considerably low amount. From unjust animal labor where horses and donkeys are mounted with hefty loads which they can barely carry to hurling sticks and stones for leisure towards stray cats and dogs, animals in Pakistan are subjected to inhumane treatment every single day. There is a desperate need for humane education in Pakistan which inspires restorative and sustainable change on behalf of all humans, animals and Earth (Institute for Humane education, 2018). The lack of research around HE, not only in Pakistan but also internationally, is what compelled this study to take place.

Literature Review

Understanding Humane Education

HE has been defined in three distinct ways in the scholarly literature including (a) a field of education emphasizing on the kind treatment of animals (The National Humane Education Society, 2010), (b) a field of inquiry highlighting the importance of critical thinking and moral reasoning in the light of environmental education and ethical treatment of animals (Horsthemke, 2009), and (c) a compilation of genres such as human and animal rights, ecological sustainability and global

concerns (Institute for Humane Education, 2018; Weil, 2010). In this study, however, I will focus solely on the human-animal relationship or the animal rights component of humane education.

Humane education comprises of intricately designed diverse strategies which are aimed at empowering students by challenging them to question their assumptions about the world. The focal point of the humane education philosophy is to provide students with knowledge around environment preservation, resolving global issues and practicing compassion and empathy towards all living beings. The goal is to impart sufficient knowledge around these concepts which will allow the student to make positive choices and act as a kind, just and socially responsible citizen. “HE curriculum is real-world and solution-focused, relevant to both students’ lives and the world, personalized, modifiable, and updated regularly” (Weil, 2016, p. 85)

Milburn (1989) defined humane education as an effort towards developing altruism and compassion in a world where all other forces are conspiring against it. Weil (2016) further draws on this idea:

It’s not just that bullying is a problem in school and that values and character are not adequately cultivated to ensure kindness, responsibility, and empathy; it’s that our daily lives are inextricably connected through the global economy to institutionalized brutality, injustice, and environmental devastation, and that we do not learn in school how to be kind, responsible, and empathetic in a world in which our everyday choices impact other people, animals, and ecosystems across the planet. (p.13-14)

According to Ascione (1997a), humane education is divided into two components called behavioral and affective. The behavioral aspect of the curricula aims at producing socially aware and responsible members of the society while the affective part of the curricula focuses on instilling increased levels of compassion and empathy towards others. Ascione (1997a) also stated that while there might be diverse humane education programs, the underlying philosophy remains the same which is to reinforce and amplify ideas around treating humans and animals in a sympathetic and compassionate manner. “Changes in attitudes are dependent on enhancing affective perspectives of animals and may therefore benefit from approaches to education that activate social, emotional, and moral processes” (Kalof, Lucia, Bell and Granter, 2016, pp. 203-204).

Weil (2010) views humane education as a form of educational activism where students are taught the required skills to become revolutionaries or solutionaries in terms of bringing about a positive change in the society. The necessary knowledge required to bring about an impact of this nature includes teaching students to critically question issues of oppression, marginalization and exploitation of humans as well as animals (Weil, 2016). Humane education should focus on creating a safe and peaceful world for all to live in by teaching students how to co-exist ethically and morally with other living beings. Weil (2004) draws parallels between humane education and social justice education by claiming that both fields have overlapping ingredients such as issues of oppression against humans, callous behavior towards animals and environmental degradation. According to Weil (2016) students need to be empowered through action-orientated pedagogy which involves encouraging students to take initiatives towards restoring compassion and integrity in the world.

Faver (2010) and Weil (1999) view HE as a character-building education which uses animal-related content to stimulate enhanced sensitivity and values such as respect and responsibility.

According to Weil (2016), the foundational elements of HE are: (i) a humane, just and healthy world is possible; (ii) we are inextricably connected, ecologically and societally; (iii) we are all responsible; (iv) solutions are dependent upon accurate information and multiple perspectives; (v) solutions emerge from strategic and creative thinking; (vi) an ideal solution does not harm people, animals or the ecosystems that sustain life; and (vii) an ideal solution addresses root problems.

Transference and Development of Empathy

The concept of transference is central to the HE philosophy. The idea is to teach students about being kind and sensitive towards animals which would ultimately result in students being kind to one another (Ascione, 1997a). Research has shown that childhood cruelty towards animals is directly proportionate to interpersonal violence in adulthood. Humane education believes that while empathy towards animals in childhood maybe transferred to being empathetic towards other human beings, violence can also be similarly transferred from interpersonal relationships between students and animals to other human beings. Thus, Humane education may act as an education for liberation from this viscous cycle of violence transference (Flynn, 1999). A study conducted by Arluke et al. (1999) suggested that there is a specific trajectory towards violence that children follow which initiates by inflicting harm towards animals and then projects onto humans. Herzog (2007) established a few significant predictors of attitudes toward animals both in childhood and adulthood which include sex, ethnicity and area of residence (urban vs. rural).

According to Currie (2006), children who are abused in their childhood are three times more likely to be abusive towards animals as related to children with no history of domestic violence. Robin and Ten Bensil (1985) suggested in their study that students who are domestically abused in their childhood start viewing animals as items of control and dominance. Flynn (1999) proposed that boys specifically see animals as inferior objects that can be easy targets of power and control. This aggressive behavior is seen to be transferred towards other family members since the development of empathy gets compromised and the notion of violence becomes increasingly acceptable with time. According to Gullone (2000) the development of empathy amongst students is undermined due to the rising culture of individualism. A research found that half of the school shooters in United States had a history of being violent towards animals (Verlinden, Herson, & Thomas, 2000). Childhood violence towards animals tends to desensitize the child towards pain and suffering who then evolves into being an abusive adult towards animals as well as humans (Kellert & Felthous, 1985).

Dillman (1999) claimed that practitioners of humane education are very much aware of the concept of transference and the fact that students will carry the knowledge forward into their future interpersonal relationships. Thus, humane education practitioners also known as solutionaries continuously make conscious efforts through action-oriented pedagogy to break the cycle of abuse and limit its transference from childhood to adulthood (Rathmann, 1999). HE practitioners aim to intervene in the domestically-abused students course of character development by introducing concepts such as empathy, kindness and sensitivity to act as antidotes to the increased levels of callousness seen in violence prone children (Hastings et al., 2000). George (1999) also emphasized on the importance of teaching children such concepts so they are better equipped with using moral reasoning while dealing with other humans and animals. Ascione & Arkow (1999) suggested that experiential learning which involves vicarious experiences and positive relationships with animals such as a school pet may assist in the development of increased empathy among students. In a

study that involved elementary school children, Ascione and Weber (1996) found that children who are engaged in a healthy relationship with a pet are more likely to have positive relationships with their peers. Ascione (1997) proposed including lessons about animal literature, animal behavior and direct physical contact with animals perhaps in the form of a school pet in order to foster compassion and a sense of responsibility among students.

Conceptual Framework

This framework has been adapted from Tucker (2016) study, “Teaching Through the Lens of Humane Education in U.S. Schools.”

1) *Fine and Sirin’s (2007) theory of hyphenated selves*

The concept of hyphenated selves in this study is seen as an identity development through the merging of two different self-identities (for example a practitioner at an educational institute/educator and a social activist promoting HE) which results in a critical pedagogy that aims to make meaning, speak back, incorporate and resist the dominant contradictory messages (Fine and Sirin, 2007). The hyphenated selves frame focuses on pedagogy which concentrates at the social and developmental psychologies of students by providing a politically, socially, psychologically and culturally charged classroom environment. This theory also allows a broad lens to understand the teacher’s belief systems based on their experiences, opinions about HE and pedagogical changes as well as their concerns around multiple identity development.

2) *Freirean philosophy (2006)*

Freirean philosophy recognizes the purpose of schooling as education for liberation and critical consciousness-raising where teachers and students break free from the conventional mainstream curriculum which is perceived to be limited in nature (Freire, 2006). This philosophy places teachers as solutionaries or cultural workers committed to bringing about social transformation. Incorporating Freirean philosophy in the conceptual framework of this study allows to view classrooms as a space for liberation and freedom where consciousness raising is encouraged to challenge current unjust practices.

3) *Transformative Learning Theory and Transformative Education*

Transformative education comprises of intricately designed curricula aimed at invigorating change in existing beliefs, understandings and behaviors (Clark, 1991; Fisher-Yoshida, Geller, & Schapiro, 2009). O’Sullivan (2012) offered a holistic approach to transformative education where pedagogy is critically designed to incorporate issues of integrity, spirituality, wisdom, planetary consciousness and quality of life for all living beings in an attempt to inculcate critical thinking and creativity amongst students. According to this theory, the self transcends the individual, spiritual and social dimensions of change in order to experience a profound understanding of one’s belief systems and behaviors. (Clark, 1991; Fisher-Yoshida et al., 2009; O’Sullivan, 2012). Cranton and Taylor (2012) draw parallels between transformative learning theory, critical social theory, humanism and constructivism based on the common underlying philosophy of spurring individual and social change. Aligned with the philosophy of humane education, transformative education and learning theory value critical thinking/reflection and solution-oriented pedagogy as

a discourse to challenge dominant hegemony resulting in social and individual change (Brookfield, 2012; Mezirow, 2012).

Methodology

Research Design

In order to obtain rich and detailed data about the attitudes and perspectives of primary school teachers regarding humane education, the study demanded a research design which is sensitive to the complicated and complex meaning-making nature of human beings (Sergivoni, 2000). Therefore, an integrated (verbal and image) qualitative approach was adopted for this research in order to gather descriptive data within the natural setting of schools to create collaborative meaning from participants' perspectives through open-ended interviews as well as the creation of drawings (image based data) to further enrich the narrative account (Yates, 2004). According to Guillemin (2004) the benefit of using an integrated approach, that is the amalgamation of visual imagery method and texts/words, offers a means to explore multiplicity in human experience.

Participants

Nine primary teachers were selected through purposeful sampling from three different elite private schools in Lahore, Pakistan. The schools were selected on the basis of their favorable repute. The criteria for participant selection was at least five years of prior teaching experience, preferably in the subjects of English Literature, Arts and Social Studies to illuminate diversity in participant's perspectives. I wanted the participants to be experienced and have sufficient professional development due to my assumption that these factors play a vital role in affecting teachers' perspectives and opinions. Without any gender bias, the teachers selected were all females, out of which three currently teach English Literature, three teach Arts and three teach Social Studies to primary students. Hence, one teacher for each of these three subjects was chosen from each school as shown below in Table 1. The ages of all teachers ranged from 30-45 years, the youngest being 30 years old and the oldest being 45 years of age.

School A		School B	
Teacher A(i)	English Literature	Teacher B(i)	English Literature
Teacher A(ii)	Arts	Teacher B(ii)	Arts
Teacher A(iii)	Social Studies	Teacher B(iii)	Social Studies
School C			
Teacher C(i)	English Literature		
Teacher C(ii)	Arts		
Teacher C(iii)	Social Studies		

Table 1: Participant Information

After the skype interviews, participants were given a prompt and asked to answer the question, “What does humane education mean to you?” by drawing a picture/portrait/symbol and accompanying it with a paragraph (using words) explaining what it represents.

Analysis

All nine skype interviews were audio-taped and personally transcribed by me. Data was coded manually and a thematic analyses were employed for the analysis and reporting on findings of the interviews. A thematic analysis was also used to analyze the drawings by coding the accompanying descriptions (of the drawings) to generate common themes (Strauss, 1987; Strauss & Corbin, 1990). According to Woodhouse (2012), while analyzing drawings it is important to consider how the drawings were produced, the conversation which accompanied them and the context within which they were generated. To analyze the drawings, the data comprised both the visual images and the participants’ written descriptions of the images, therefore, in addition to a thematic analysis I also drew on Guillemin’s (2004) adaptation of Rose’s (2001) critical visual methodology framework which focuses more specifically on the drawing itself.

Findings

In this section, I first present the findings from the interviews followed by the findings from the drawings followed by a discussion on both of these findings from two different mediums for a more rounded knowledge.

Interview Findings

Attitudes Towards Animals

Human rights vs. Animal rights

All nine teachers interviewed maintained the stance that animals should be treated with care and respect which is not always the case in Pakistan especially in the context of rural areas. The sub-theme of human rights being more important than animal rights emerged quite often in the data. Teacher A(i) stated, “Although animal rights are important, in a country like Pakistan where human rights are violated every other day with such fearlessness, I doubt that Pakistanis would take animal rights that seriously”. In addition, Teacher B(iii) delineated human rights as “more important than animal rights” and emphasized more focus on them. Teacher C(ii) highlighted the connection between human rights and animal rights stating, “Pakistanis need to first learn how to co-exist peacefully amongst themselves given the violent communal rivalries, only then can they live peacefully with other species”.

Superstitions

Superstition is another sub-theme which emerged recurrently in the data. Teacher A(i) commented on the intentional exclusion of owls from English literature books commonly used in Pakistani Schools due to the superstition that “owls are flag bearers of bad omen and death”. Teacher B (i) maintained that while all animals deserve love and empathy, “black cats should be stayed away

from since they bring bad luck if they cross your path". Teacher B(ii) also held similar beliefs regarding black cats and narrated a personal experience where she met a "devastating accident after a black cat crossed her path". Teacher C(i) mentioned crows and their association with bad luck as well as "rabbits believed to be witches in disguise". Teacher C(ii) commented on the deliberate exclusion of peacocks in her classroom since they "bring bad luck masked under their beautiful exterior". Although all of the teachers were quite favorable towards most of the animals (especially commonly domesticated animals such as dogs, parrots, cats, etc.), those associated with superstitious beliefs were seen to be unpopular amongst the lot.

Pain

This idea that animals don't experience pain as humans do was brought up time and again in the interviews. Teacher A(iii) commented, "I guess the main reason why animal rights are not given as much importance as they deem is because animals don't experience pain to the extent that humans do". Furthermore, Teacher B(iii) stated, "we can't always decipher if the animal is in pain because animals don't respond to pain like humans do for example they don't cry when in distress". This belief that humans experience pain on a greater level was further reaffirmed by Teacher C(i) who commented, "animals have a greater threshold of pain than humans and thus are able to survive in harsher conditions".

Animal Content in Existing Curricula

Animal related content seemed to be lacking in the existing curricula across the different disciplines under investigation. While some literature containing animal characters is currently included in English Literature classes, there are no follow-up critical discussions concerning the emotions, behaviors or experiences of the animals. The animals are usually portrayed in a highly romanticized way where the students are unable to relate to them causing a diversion from reality. Everyday mistreatment of animals is not a topic for discussion in classrooms leading to an "absence of social activism discussion" as mentioned by Teacher A(i). According to Teacher B(i), "We do have a few animals in the literature we discuss but the content is not as such to stimulate emotional responses towards animals or to be empathetic towards them. I think the animals are usually displayed in a very fiction-like manner and students don't really read about the reality perhaps because reality doesn't really make for a fun read and so to make the students interested the animals are portrayed in a certain light which is not always the truth". The topics of social activism and personal transformation in the light of animal rights is almost never discussed in the examined classrooms making them devoid of humane education (in regard to animal welfare). Teacher C(i) not only mentioned a lack of animal related literature but also emphasized on the need for "a character building education because it seems like all the focus is on math and science whereas the students also need to learn how to be good human-beings". Teacher C(ii) talked about including curricula which would focus on "replacing negative characteristics just as callousness with more positive characteristics such as altruism". While the consensus was that there isn't nearly enough animal-related content in the existing curricula which focuses on real-life issues related to animals and their current mistreatment, the teachers unanimously agreed on a need for including specifically designed content which would activate emotional responses amongst students in the hopes of promoting positive personal development and characteristics. The teachers also mentioned a lack of other humane education topics such as environmental and human

injustices and felt there is a need for more focus on such global issues from a realist perspective which would eventually encourage students to be engaged social activists.

Diverse Pedagogical Tools

Diverse pedagogical tools seemed to be the answer to providing a holistic approach towards transformative education which would promote self-reflection and critical thinking. The teachers seemed to agree that there is a lack of such novelty pedagogy which is both creative and innovative. Teacher A(i) commented on “adapting western pedagogy which is more interactive rather than instructional so that students get to apply their creative minds instead of simply relying on the teachers answers or instruction”. Teacher A(ii) suggested including varied pedagogical tools in art especially “film, poetry, drawings and photography to stimulate the latent creativity in the students”. Teacher B(ii) also emphasized on the inclusion of photography in disciplines other than Art since a previously conducted project (in her classroom) on conservatory photography proved to be extremely fruitful as “students connected with nature on a deeper level than any other previously conducted projects”. Teacher B(iii) suggested the inclusion of multimedia in classrooms since students tend to lose interest in the old fashioned conventional ways which is why “pedagogy needs to be updated with changing times as in the West”. Teacher C(ii) explained the inclusion of holistic activities which would focus on developing the “heart as well as the mind”. She further explained that students should be engaged in activities which would require them to critically analyze situations and come up with solutions rather than rely on standardized testing which is based on rote memorization. Teacher C(iii) held similar views and expressed interest in diverse pedagogical tools but mentioned a lack of technology, resources and proper teacher training and professional development by commenting, “I would certainly like to use different pedagogical tools and include new and creative projects in my classrooms which would aid in activating emotional responses from students toward social justice issues such as animal, human and environment rights but educators need to be trained on how to do it. We need professional development training where we are taught what works and what doesn’t work based on existing research. We can’t just improvise hoping for the best”.

Data Collected from Drawings

The participants were asked to draw what humane education meant to them post the conducted interviews accompanied by a short description of their drawing including an explanation on their choice of colors. The participants were asked not to erase or correct any errors while drawing in order to produce an authentic and organic visual product which reflects their truest and inner most instinctive reaction on the subject. Some of the teachers were hesitant at first as they worried about the quality of their drawings and insisted they lacked drawing skills but they were reassured that they could express themselves in the simplest way possible and no judgements would be made based on their drawing skills.

Human-Animal Relationship

Since much of the conversation revolved around animals and human perception of them, most of the participants chose to depict human-animal dichotomy in their drawings. The drawings depicted a favorable relationship between the two with the use of mostly bright colors to symbolize feelings

of “happiness and camaraderie” as reported by Teacher A(ii) who drew Figure 1 in response to what humane education meant to her.

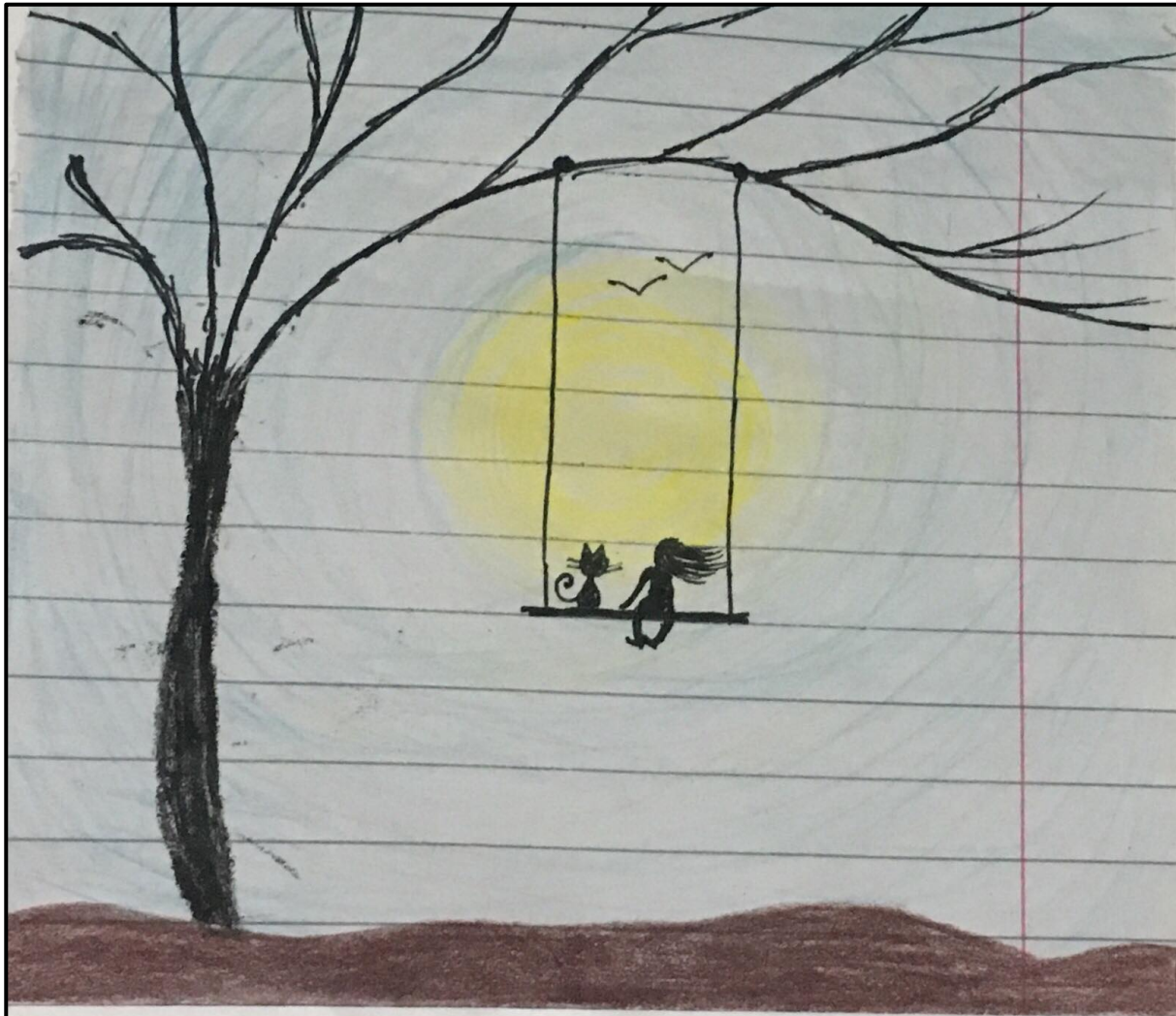


Figure 1: Teacher A(ii)'s Drawing

Teacher A(ii) said of her drawing:

This drawing to me represents hope, especially the sun, a ray of hope for the future. I hope that in the future the relationship between animals and humans will flourish. I believe birds symbolize love and good luck, therefore, I have intentionally placed them above the pair to shower their good luck upon them. While drawing the birds I had doves in mind so I imagine these two birds to be doves actually. I used the yellow and the blue in the backdrop to symbolize happiness and camaraderie. The colors to me evoke feelings of positivity and hope.

Similarly, Teacher C(iii) also chose to incorporate human-animal relationship in her drawing as shown in figure 2.

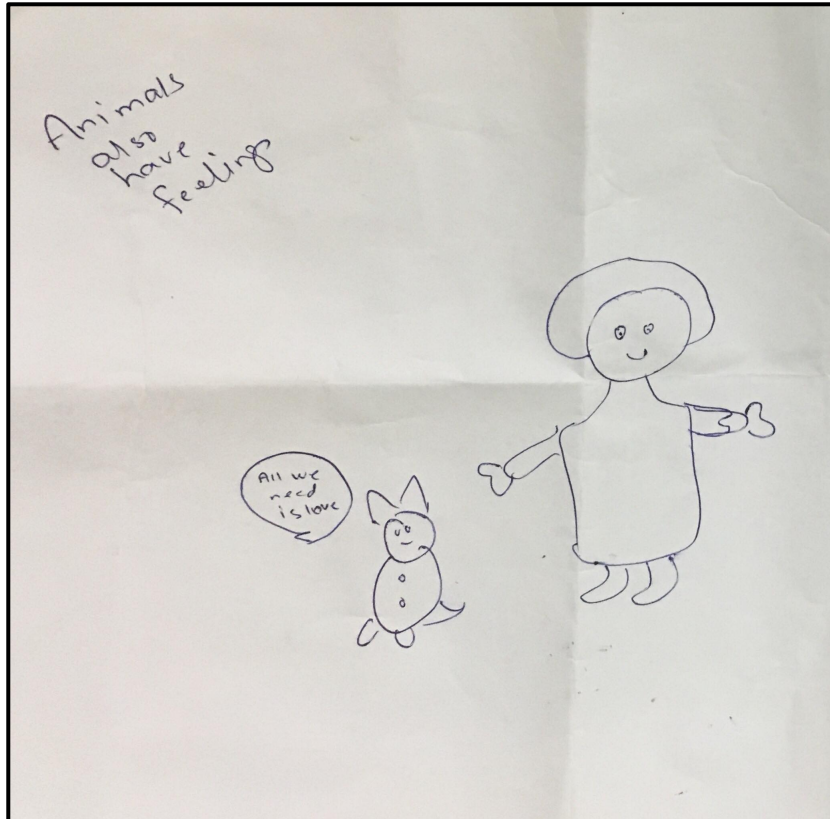


Figure 2: Teacher C(iii)'s Drawing

Teacher C(iii) said of her drawing:

Humane education to me simply means being humane towards every life form. The picture I drew is pretty self-explanatory. The message behind this drawing is that sometimes due to the different exterior of animals we subject them to the phenomenon of othering and forget that they too have feelings and are sensitive beings. The cat I drew is saying “All we need is love” and I truly believe that all animals really demand of us is love. I hope that in the future things change and we learn to accept that animals are actually worthy of our love. The color I used is blue because I read somewhere that blue is a color which represents imagination and sensitivity which I tried to transcend into this drawing.

Liberation Pedagogy

Liberation pedagogy is another theme which emerged in the drawings. The teachers unanimously agreed on the dated aspect of the curricula and recurrently commented on its restrictive nature which then translates into maintaining the status quo and certain aspects of a society such as social hegemony. The teachers commented on introducing liberation pedagogy which would aim at challenging existing beliefs and practices concerning animals, humans and the environment under the umbrella term of humane education. Figure 3 is a drawing by Teacher B(i) who portrayed liberation pedagogy through the mythical creature phoenix which is used as a metaphor for renewal and transformation.



Figure 3: Teacher B(i)'s Drawing

Teacher B(i) said of her drawing:

I drew a phoenix to represent transformation and rebirth of sorts. The phoenix is rising from the ashes, well in this case I drew flames, to be free and a better, newer, more updated version of himself. I named the drawing Phoenix 2.0. This phoenix is a metaphor for an updated pedagogy which needs to focus on transformation and liberation from the outdated curricula and pedagogy which serves to preserve the interests of the dominant hegemony. We need curricula 2.0 which focuses on student transformation and challenging students' preconceived notions which have travelled through generations and are also a reflection of our societal norms. Initially I wanted to use orange and yellow for the flames and also for the phoenix since that is supposed to be its color but then I decided to use black since black I feel is the strongest color in the pallet and I think this particular topic demanded a color like black for the message to be loud and clear.

Teacher B(ii) also discussed liberation pedagogy in her drawing as shown in figure 4.



Figure 4: Teacher B(ii)'s Drawing

Teacher B(ii) said of her drawing:

I drew a centaur, half human, half animal, to represent the notion of interconnectedness which humane education stands for. The other aspect which is being represented in this drawing is that of being free which is being shown in the running movement of the centaur. The idea is to break free and run from the established norms of the society which at times are quite nefarious such as animal negligence, but we stick to them since they have been deeply ingrained in our minds over time. It's time to move on and adapt new models of education and build towards a better and more humane society. I didn't use color for my drawing to represent solemnity towards the matter.

Discussion

“If we are to teach real peace in this world, and if we are to carry on a real war against war, we shall have to begin with the children” -Mahatma Gandhi

While the results of this study reveal that according to the investigated primary teachers there isn't a character-building education in the existing curricula which focuses on instilling values such as empathy, compassion, responsibility, kindness, etc. towards animals, such transformational education should only be delivered after teachers have been properly trained and their beliefs regarding the importance of animal justice align with the philosophy of humane education. Some of the teachers were seen to dismiss animal injustice as an overrated issue in a country where human rights are being violated recurrently with people and institutions getting away with heinous crimes without any negative repercussions. This kind of mindset needs to be countered with the HE philosophy of interconnectedness where animal, human and environmental rights are deemed equally important and worthy of simultaneous attention for a just, humane and sustainable world. Beliefs such as animals don't experience pain the way humans do or superstitious thinking such as black cats doomed to bring bad luck (if they cross your path) are unworthy of love and care needs to be addressed before educators become mascots of HE. The Institute for Humane

Education (IHE), cofounded by the prolific author Zoe Weil in 1996, offers in-person workshops as well as online courses (as well as a free resource center for educators everywhere) in order to train and provide professional development to educators who want to infuse their curricula with interconnected global issues pertinent to today's world and prepare their students to be thoughtful, compassionate and effective solutionaries through solutions-focused initiatives (Weil, 2016). Such online courses should be taken advantage of in order to introduce teachers to the concept of HE and its successful implementation in their existing classrooms. Further research needs to be done on the success of such online professional development interventions for weaving a character-building education into the existing curricula in the context of Pakistan.

According to the teachers, the existing primary curricula does not include content specifically designed to activate emotional responses to animals through critical visual and textual analysis of animal related literature. While there is some literature present which includes animal characters, there isn't any emphasis on follow-up critical discussions related to their emotions, behaviors, experiences, etc. Ascione (1997) proposed including lessons about animal literature and animal behaviors in schools so that students are better equipped with using moral reasoning while dealing with nonhuman animals. Russell (2005) claims that stories or narratives about animals may help in the imagination of images representing animals' perspectives and embodied experiences.

In order to stimulate the affective responses of students, the use of art (including artistic projects which involve creativity and innovation), music and poetry have seen to be important mechanisms (Littlelyke, 2008). Image-based media such as visual depictions of animals can be used to activate emotional responses to animals and alter human perceptions of them (Blewitt, 2011; Burt, 2002). Kellert and Westervelt (1984) also acknowledged the power of visual media in shaping human attitudes towards wildlife. The use of films and conservation documentaries which involve emotive images can also generate positive changes in attitudes towards nonhuman animals (Pearson, Dorrian, and Litchfield, 2011). Picture books or comics containing animal content also have the potential to allow students to learn about human-animal relationships and their connections to the natural world in an engaging manner (Wells and Zeece, 2007). According to Fawcett (2002) drawings or pictures evoke a sense of familiarity within children and could even "tap a deeper level of attitudinal response" (p. 129).

According to Rivet and Schneider (2004), digital photographs used in classroom projects have the ability to enrich students' understanding of the content in a manner not possible solely through conventional verbal instruction provided by the educator. According to Kuhl (2011), photographs of particular animals shed light on unique personalities of individuality to create a "richer and more holistic representation ...in a way that text alone could not have done" (p. 116). Conservation photography which includes images of wildlife issues such as harm inflicted toward animals has the potential to become an engaging tool in improving perceptions of animals and thus is employed by organizations such as Wild Media Foundation and Wild Wonders to inspire care and respect for wildlife and the environment (Kalof et al., 2016; Farnsworth, 2011). Farnsworth (2011) contends that photography can be used as an educational tool through the art of sharing the affective experience of picture taking by the photographer with a larger audience. Such activities where students adopt the Fine and Sirin's (2007) hyphenated selves theory and take on the role of photographers alongside being students and teachers can prove to be fruitful in understanding their connections to the natural world. Follow-up classroom discussions should engage students in a critical reflection around the animals' emotions, expressions, needs, behaviors, experiences, etc.

A study conducted by Kalof et al. (2016) found that animal portraiture improved feelings of kinship with animals and enhanced perceptions of animal individuality in a classroom setting. According to Zammit-Lucia and Kalof (2012), human portraiture when applied to animals can activate similar unconscious associations that are activated when we view human portraits. It can be hypothesized then after the Kalof et al. (2016) study that animal portraiture can be used in classrooms to positively alter perceptions about animals since it allows the students to view the animal in a familiar human frame (for example calling animals *nonhuman* animals) and unconscious associations might be activated for example of individuality and kinship (as found in the study).

The portraits used in the Kalof et al. (2016) study aimed at going beyond the animals' physical appearance or viewing them as observed objects. Instead they focused on deeper realities of the intricate human-animal relationship, relating to the animals as individuals rather than specimens of a particular species and imagining the experiences of being different animals (Zammit-Lucia and Kalof, 2012).

My symbol

Using the principles of Anishnaabe symbol-based reflection, I developed my own symbol representing what humane education means to me and how I conceptualize it after conducting this study. I followed the same instructions I gave to the teachers and did not erase, alter or correct any mistakes. I wanted the symbol to be authentic, organic, spontaneous and meaningful rather than perfect or flawless. This is the symbol I drew in first attempt and did not correct any errors.

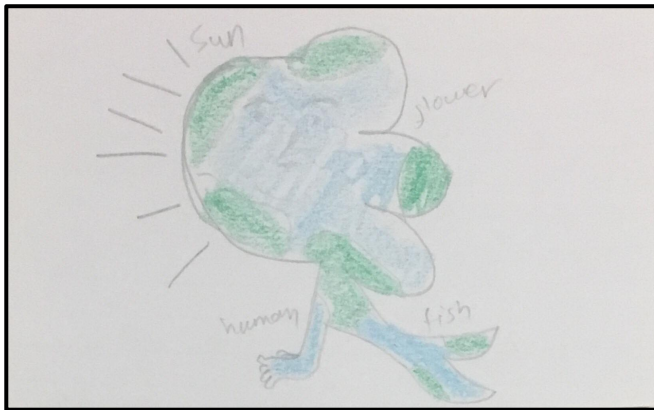


Figure 5: Ripple effect due to Interconnectedness

Figure 5 represents the philosophy of interconnectedness and interdependency of animals, humans and the environment. The idea is to nourish and replenish each dimension of this image in order for the entire body to grow which in this case represents Mother Earth. Just like the care and nurturing of one part will benefit the entire body, the ill-treatment will cause destruction and demolition of all the connected parts. Therefore, it is incumbent on us to be conscientious and wise decision makers in order to be catalysts in the positive transference of the ripple effect.

Conclusion

In this paper, I have attempted to understand the perspectives of primary school teachers regarding humane education in Pakistan's private schools. Using two different qualitative methods for

clarity, richness and correlation (triangulation) between the data, the study findings suggest that humane education should be included in classrooms as early as primary classes focusing specifically on moral education in the hopes of a better world which is just, humane and sustainable. Although the teachers were seen to be in favor of such an education which promotes ethics, integrity and respectful conduct, certain beliefs such as superstitions concerning animals or that animals do not feel pain like humans do need to be addressed through professional development and teacher training programs/courses such as those offered by The Institute for Humane Education (online and easily accessible globally). There is also a need for animal rich narratives and images to be included in the existing curricula in the form of animal based stories, animal portraiture (viewing animals in a humanistic frame), conservation photography (where students take pictures of wildlife and share their experiences with the class), etc. Animals, however, need to be represented in such a way that they are no longer a victim of othering and the status quo is disrupted resulting in liberation pedagogy which is what humane education strives for. I agree with Kuhl (2011) that “Incorporating alternative forms of representation may also allow for more varied, holistic, and embodied understandings of human/animal-other relationships and interconnections to emerge” (p. 119). Therefore, the potential advantages of using diverse pedagogical tools such as the incorporation of multimedia and varied art forms in classrooms should not be undermined as they can attend to the development of the whole child including the mental, physical and emotional.

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About the Author

Sunnya Khan is currently a PhD student at University of Toronto (OISE), enrolled in the PhD Curriculum and Pedagogy Program with a collaborative specialization in Comparative, International and Development Education. She holds a Masters in Educational Leadership and Policy (OISE) with an undergraduate degree in English Literature and Media Studies, both from University of Toronto. She is conducting research on youth well-being and education particularly integrating well-being pedagogy in classrooms in the hopes of building sustainable well-being literacy (mindfulness, neuroplasticity, character strengths, resilience, gratitude, optimism, hope, motivation, self-evaluation, introspection, relationship and self-regulatory skills) which can impact thought, behavior and life trajectories. Her key interests include curriculum design, policy development, research, inclusive practices, restorative approaches, Peace, Social Justice and Humane Education. She has previously worked as an educator both in Private and Public schools in Pakistan. In the future, she hopes to work with United Nations (UNESCO) on education projects such as UNGEI (United Nations Girls Education Initiative).

Culture et enseignement dans la civilisation arabo-musulmane

Aïcha Maherzi

University of Toulouse - Jean Jaurès, France

« Les Arabes n'ont pas été de simples intermédiaires mais les maîtres et éducateurs de l'Occident latin. » GRAWITZ, M. 1974. *Les méthodes des sciences sociales*. Paris : Dalloz.

« Les Arabes ont fait au monde le plus riche présent dont aucun génie de peuple ait doté le genre humain. Si les Grecs lui ont donné le mécanisme logique, les Arabes lui ont donné la logique du nombre, l'arithmétique, l'algèbre et l'indispensable instrument des sciences. » Michelet, J. 1857. *Histoire de France au XVI^e siècle. T.2*. Paris : Chamerot.

Notre présente réflexion repose sur la relation entre deux axes, celui de la culture et celui de l'enseignement. Ce dernier est un outil indispensable pour la transmission de la culture sans laquelle il ne peut lui-même fonctionner. Pour analyser leurs rapports, nous prendrons l'exemple de la civilisation arabo-musulmane où les deux éléments ont interféré constamment pour participer de concert à son développement. Auparavant, il nous faudrait voir comment se construit une culture donnée et les étapes par lesquelles elle passe. Cela nous éclairera sur une réalité, celle des emprunts culturels entre toutes les civilisations.

En effet, à travers l'histoire de l'humanité, les cultures ont toujours dialogué entre elles. Elles se sont nourries les unes des autres et cela même en temps de conflit et de guerre. Le savoir et le savoir faire investis dans les productions manuelles et intellectuelles de toute l'humanité, ont de tout temps circulé d'un espace à un autre, d'une société à une autre, faisant fi des contraintes et des barrières imposées par les hommes. Si nous partons de l'analyse de la culture et de l'enseignement chez les Anciens Arabes, cela ne nous dispense pas de mettre l'accent sur l'importance capitale de ces emprunts qui ne sont pas seulement essentiels à la survie de la civilisation mais qui, s'ils sont reconnus et introduits dans les cursus des systèmes éducatifs mondiaux, pourraient largement contribuer à lutter contre la xénophobie et le rejet de l'autre. Valoriser l'autre et son identité culturelle, l'écouter et le reconnaître comme porteur de richesses et non comme un simple intrus au mieux à éviter et au pire à éliminer, favoriserait l'entente et la paix dans les sociétés et entre les populations du monde entier.

تعتمد دراستنا على العلاقة بين محورين ، الثقافة والتعليم ، هذا الأخير هو أداة لا غنى عنها لنقل الثقافة والحفاظ عليها ، فبدون التعليم لا يمكن للثقافة أن تعمل تلقائياً. لتحليل روابطهم ، سوف نأخذ مثالا للحضارة العربية الإسلامية حيث يتدخل العنصران باستمرار للمشاركة في تطورها. أولاً ، يجب أن نرى كيف يتم بناء ثقافة معينة والمراحل المستخدمة، هذا سوف يبين لنا حقيقة واقعة وهي الرموز الثقافية بين جميع الحضارات.

في الواقع ، طوال تاريخ البشرية كانت الثقافات تتعايش معا ، لقد سئموا من بعضهم البعض حتى في الصراعات ووقت الحرب، إن المعرفة والدراسة المستثمرة في الإنتاج اليدوي والفكري للبشرية جمعاء كانت دائماً تنتقل من مكان إلى آخر ومن مجتمع إلى آخر ، متجاهلة القيود والحوجز التي يفرضها الناس. إذا بدأنا من تحليل الثقافة والتعليم بين العرب القدامى فإن هذا لا يستبعد التشديد على أهمية رأس المال لهذه العلامات ، والتي لا تعد ضرورية فقط لبقاء الحضارة ولكن ، إذا تم الاعتراف بها وأدخلت في مناهج العالم ونظم التعليم ، يمكن أن تقطع شوطاً طويلاً نحو مكافحة كره الأجانب ورفض الآخر. إن تقييم الناس وهويتهم الثقافية ، والاستماع إليهم والاعتراف بهم كحامل للثروة وليس مجرد متسللين وهذا من شأنه أن يعزز التفاهم والسلام في المجتمعات وبين الناس في جميع أنحاء العالم.

我们的研究以文化和教育为两个轴，探究两者之间的关系。后者是文化传播不可或缺的工具。为了分析它们之间的联系，我们将以阿拉伯穆斯林文化为例，研究这两个因素如何不断共同影响此文化的发展。首先，我们必须查看某一既定文化的形成和使用的不同阶段。这将启迪我们发现各个文明之间的文化象征的实质。实际上，在整个人类历史上，文化一直生活在一起。即使在冲突和战争时期，他们也一直共存。在人们的手工和知识生产中投入的知识和诀窍总是从一个空间传播到另一个空间，从一个社会传播到另一个社会，而忽略了人为造成的限制和障碍。如果开始分析古代阿拉伯的文化和教育，我们会发现我们必不可免会开始强调文化符号作为一种资本的重要性。这不仅对文明的生存必不可少，而且如果得到认可并引入世界课程教育系统，可以长远地帮助对抗仇外心理和排斥他人的现象。重视每一个人及其文化身份，倾听他们的声音并承认他们是文化财富的承载者，而不是仅仅把他们当作需要被避免或消除的入侵者，如此将促进世界各国人民间的相互理解与社会的和平。

Our study is based on the relationship between two axes, that of culture and that of education. The latter is an indispensable tool for the transmission of culture without it cannot work itself. To analyze their links, we will take the example of the Arab-Muslim civilization where the two elements have constantly interfered to participate jointly in its development. First, we would have to see how a given culture is built and the stages used. This will enlighten us on a reality, that of cultural symbols between all civilizations.

In fact, throughout the history of humankind, cultures have always lived together. They are fed up together even in the conflict and war time. The knowledge and know-how invested in the manual and intellectual productions of all humanity have always circulated from one space to another, from one society to another, ignoring the constraints and barriers imposed by people. If we start from the analysis of culture and education among the ancient Arabs, this does not exclude emphasizing the capital importance of these marks, which

are not only essential to the survival of civilization but which, if recognized and introduced into the curricula of the world's education systems, could go a long way towards fighting xenophobia and rejection of the other. Valuing people and their cultural identity, listening to them and recognizing them as bearers of wealth and not as mere intruders to avoid or to eliminate, would promote understanding and peace in societies and between people over the world.

Наше исследование основано на взаимосвязи между двумя осями - культурой и образованием. Последнее является незаменимым инструментом для передачи культуры, без которой она не может работать сама по себе. Чтобы проанализировать их связи, мы возьмем пример арабо-мусульманской цивилизации, где эти два элемента постоянно вмешивались, чтобы совместно участвовать в ее развитии. Во-первых, нам нужно увидеть, как строится данная культура и какие этапы используются. Это просветит нас относительно реальности культурных символов между всеми цивилизациями.

На самом деле, на протяжении всей истории человечества культуры всегда жили вместе. Они переживали вместе даже в конфликтное и военное время. Знания и ноу-хау, вложенные в ручное и интеллектуальное производство всего человечества, всегда циркулировали из одного пространства в другое, из одного общества в другое, игнорируя ограничения и барьеры, навязанные людьми. Если мы начнем с анализа культуры и образования древних арабов, то это не исключает подчеркивания исключительной важности этих знаков, которые не только необходимы для выживания цивилизации, но которые, если они будут признаны и введены в учебные программы мировых систем образования, могут пройти долгий путь в борьбе с ксенофобией и неприятием других. Цени людей и их культурную самобытность, прислушиваясь к ним и признавая их в качестве носителей богатства, а не просто нарушителей, которых следует избегать или устранять, мы содействовали бы взаимопониманию и миру в обществах и между людьми во всем мире.

Nuestro estudio esta basado en la relación entre dos ejes, el de la cultura y el de la educación. Esta última es una herramienta indispensable para la transmisión de la cultura sin la cuál no puede funcionar. Para analizar sus vínculos, tomaremos el ejemplo de la civilización Árabe-Musulmana donde ambos elementos han interferido constantemente para participar conjuntamente de su desarrollo. Primero, deberíamos ver como se construye una cultura determinada y las etapas utilizadas. Esto nos iluminará una realidad, aquella de los símbolos culturales entre todas las civilizaciones.

De hecho a lo largo de toda la historia de la humanidad, las culturas siempre han vivido juntas. Incluso se alimentan conjuntamente durante el conflicto y el tiempo de guerra. El conocimiento y la experiencia invertidos en las producciones manuales e intelectuales de toda la humanidad han circulado de un espacio a otro, de una sociedad a otra, ignorando las restricciones y barreras impuestas por las personas. Si comenzamos con el análisis de la cultura y la educación entre los antiguos árabes, esto no excluye enfatizar la importancia capital de estas marcas, que no son solamente esenciales para la supervivencia

de la civilización, sino que, si fueran reconocidas e introducidas dentro de los planes de estudio de los sistemas educativos del mundo, podrían recorrer un largo camino hacia la lucha contra la xenofobia y el rechazo del otro. Valorar a las personas y a su identidad cultural, escucharlas y reconocerlas como portadoras de riquezas y no como simples intrusos a evitar o eliminar, promovería la comprensión y la paz en las sociedades y entre las personas de todo el mundo.

Introduction

« La pensée a des ailes que nul ne peut couper » dit le refrain d'une chanson du film du célèbre cinéaste égyptien Youcef Chahine (1996) « *Le destin* » qui a voulu démontrer que les échanges entre les cultures produisent la tolérance et l'emportent sur l'enfermement, le rejet de l'autre et la violence. L'eau stagnante d'une mare, ne donne pas envie d'y boire. Mieux vaut passer son chemin si l'on veut éviter le pire en y buvant. L'entre soi est nocif à la survie de l'humain.

De nos jours, les échanges entre les peuples de toute sorte de produits culturels et autres, sont devenus plus courants que par le passé. Leur circulation est facilitée par le développement de la technologie, des nouveaux moyens de communication et d'information, des transports rapides et de l'effet en général de ce que l'on appelle « la mondialisation » - qui elle, pose cependant problème car elle se veut souvent, inscrite dans les marchés seulement économiques au détriment des éléments culturels eux-mêmes. Or ces derniers sont la base du véritable dialogue et l'élément fondamental propice à la compréhension et à l'entente entre les populations mondiales.

Force est de constater que ces populations font fi des strictes et draconiennes règles politiques et économiques qui font barrière à ce dialogue entre les cultures, porteur de compréhension et de paix. Des échanges culturels féconds s'imposent malgré les hauts murs qui s'érigent un peu partout pour empêcher la libre circulation des individus dits migrants, de franchir telle ou telle frontière géographique. La peur de l'autre ne fait pas peur à la circulation des cultures.

En effet, malgré toute sorte de restrictions visant aujourd'hui à maintenir les populations chez elles, les empêchant ainsi de se déplacer et les confinant dans les enfers des famines, des guerres et des misères, les échanges culturels entre le monde dit développé et celui qui l'est moins ou qui ne l'est pas du tout, continuent à se faire.

Il s'agit là de pratiques millénaires dont les racines sont dans l'avènement même de l'humanité. Celle-ci ne connaît pas de monoculture ni de culture(s) supérieur(e)s et d'autre(s) inférieures. Les cultures sont multiples en elles-mêmes et ne peuvent ni naître ni survivre sans les changes avec les autres cultures dont elles dépendent étroitement. Toutes les cultures se valent et sont à ce titre le bien commun de tous les humains. Admettre cette vérité nous appelle à plus de clairvoyance, à moins d'arrogance, à plus d'humanité et à plus de tolérance. C'est la base-même de la marche vers la paix.

I. De la construction d'une culture donnée

1. Définition de la culture

A travers l'histoire, les cultures mondiales nous ont prouvé qu'elles ne connaissent pas de

frontières. Elles ne sont pas isolées et se prêtent entre elles des éléments qui les enrichissent les unes les autres. Mieux encore, une culture donnée ne peut exister sans l'apport des autres cultures qui lui ont précédé ou qui lui sont contemporaines. A l'image de la formation de la personnalité de l'homme, une culture se construit d'abord grâce aux apports des autres, pour acquérir au fur et à mesure de son évolution, une indépendance et un statut autonome. A travers le temps, le patrimoine culturel humain *se transmet d'abord*, avant de devenir culture propre à un groupe d'individus ou à une société donnée.

Sur le plan des idées philosophiques par exemple, l'Occident a hérité de la pensée arabe avant de forger la sienne propre. Sa tradition intellectuelle remonte à la crise de la scolastique, au débat sur la relation entre la foi et la raison, aux études en théologie qui ont été importés du monde arabe. Les travaux d'Averroès ont été dans ce sens, le levain de la pensée philosophique occidentale. Autre exemple, en médecine : et nous ne citerons qu'Avicenne dont les travaux ont servi de base au développement des recherches et des études médicales en Europe. Son livre *Le canon* a été utilisé comme source fondamentale d'enseignement médical dans les facultés de médecine jusqu'au début du vingtième siècle. La transmission s'est faite grâce aux traductions et la Renaissance en Occident n'aurait pas eu lieu si celle-ci ne s'était pas faite.

Cette transmission se matérialise grâce à une chaîne de personnes-clés (éducateurs, traducteurs, savants, enseignants, parents etc.) à laquelle Ibn Khaldun (1978), dans sa *Muqaddima* (ou *Discours sur l'histoire universelle*), donne le nom évocateur de "*sanad*" qui veut dire à la fois appui, source, référence et chaîne de transmetteurs. Ce sont en quelque sorte des banques de données vivantes qui se renouvellent selon les âges et les changements propres à la nature humaine. Des sources où viennent puiser les hommes et à partir desquelles ils vont se constituer leur propre culture. Car celle-ci ne vient pas du néant, elle se construit, s'acquiert et ne se donne pas, même si au départ elle a besoin de prendre appui sur d'autres « *sanad* », sur d'autres données culturelles puisées chez les autres civilisations. D'où l'universalité de ces dernières malgré leur diversité. Elles forment une pyramide jamais achevée où des populations multiples ont apporté leur pierre à travers l'histoire de l'humanité et continuent à le faire encore aujourd'hui.

Si nous admettons que la culture est l'ensemble des productions matérielles et intellectuelles d'un groupe donné en rapport avec son environnement naturel et humain et que ces productions sont porteuses de sens produit par l'histoire commune à ce groupe, nous pouvons nous interroger non seulement sur le contenu et les caractéristiques de cet ensemble mais aussi sur le processus de sa naissance. Il nous importe de savoir comment la culture vient au monde. Avant toute tentative de sa description, de l'inventaire de ses éléments, de leur fonctionnement, de leur comparaison et de leur analyse, nous devons nous poser des questions préliminaires sur le comment de l'opération même de la naissance d'une culture donnée car avant de donner un sens à ce qui existe, il importe de dire comment cette existence s'est réalisée, comment elle est devenue existence.

En général, elle passe par un processus de fécondation et de gestation. Au départ, c'est une graine qui est semée, qui germe puis vient à la vie tel un enfant qu'il faut ensuite accompagner pour l'amener vers l'âge de la raison où il se prendra en charge, s'assurant alors pleinement.

La culture, contrairement à ce qu'avancent certains, peut décliner et même mourir. Toutes les cultures sont soumises à ce schéma si elles ne sont pas entretenues activement par leurs agents. La notion de permanence de la culture, est à notre sens, erronée car son développement peut être stoppé si ceux qui sont chargés de la véhiculer et de la garder en activité constante, viennent pour diverses raisons, à abandonner cette chaîne de transmetteurs qui les lie solidement. Cela s'est produit pour plusieurs cultures dans l'histoire et, nous dit Ibn Khaldun, à propos du « *sanad* » dans la civilisation arabe de son époque, « *kada an yankati'* » (il était sur le point

d'être rompu). Une phase de décadence ayant effectivement commencé au XIV^e siècle à envahir l'aire de la civilisation arabo musulmane. Des facteurs exogènes et endogènes à la fois, ont joué un rôle majeur dans la coupure de la chaîne des transmetteurs. Les guerres comme l'invasion moghole du XII^e siècle, les décisions politiques *a contrario* du développement, l'absence de mécénat, l'abandon de la recherche scientifique, l'appauvrissement du domaine de l'éducation, ont provoqué un rétrécissement de la pensée et le temps de l'inertie a fait le reste.

2. Les phases de la construction d'une culture donnée

Le même auteur nous explique que la culture est typiquement humaine dans la mesure où elle est propre à l'homme. Elle naît, grandit et peut à son instar décliner. Ce que nous retenons ici, c'est qu'elle est évolutive. Elle passe par un processus d'élaboration, de construction et de production qui se plie à trois étapes essentielles :

a-la première est celle de la quête de données

où nous apprenons que la culture ne vient pas effectivement du néant. Elle n'est pas *ex nihilo* et ne peut en aucun cas être le fruit d'une génération spontanée. Elle ne surgit pas d'un *rien*. Signalons que même le terme "*rien*" en français, veut dire au départ « *quelque chose*. » Dans la langue arabe, le rien ou le « *chay* » est le « *x* » de l'algèbre c'est-à-dire le « *quelque chose* » qui existe mais qui est caché et qu'on cherche à trouver. La culture vient d'abord de ce « *chay* », de ce *rien-quelque-chose* indispensable à son commencement.

b- la deuxième est celle de transformation du « chay » en information.

Les données se recueillent grâce à une quête volontaire et un effort constant d'investigation individuelle et/ou collective. Dans la religion musulmane, cette quête est une obligation pour le croyant. Le Coran demande à maintes reprises aux musulmans, de rechercher la science, d'interroger ceux qui savent, d'écouter les détenteurs de la connaissance et du savoir, d'apprendre de leur bouche ce qu'eux-mêmes ont appris, de les respecter et de prendre exemple sur eux pour évoluer et tendre vers le savoir et la connaissance.

Une fois ces données recueillies auprès de ceux qui possèdent le savoir et qui forment la chaîne des transmetteurs, elles doivent être assimilées, comprises, critiquées et apprivoisées par le « *taleb* » (ou demandeur de la science). Il y a là un travail de « digestion » qui transforme les éléments pris ça et là en énergie et en richesses propres à l'individu, au groupe et à la société qui les ont assimilés pour enfanter à leur tour une nouvelle culture qui leur serait propre.

c- La troisième est celle de la transmutation du nouveau « chay » trouvé, acquis et assimilé.

Il est alors transformé en informations propres et spécifiques aux nouveaux créateurs de la nouvelle culture. C'est l'étape de la production de nouveaux savoirs. C'est celle de l'autonomie où la culture devient pour celui qui la possède « *malaka* » (ou possession) selon l'expression du même Ibn Khaldun, des nouveaux tenants de ce « *chay* » C'est la manifestation d'une véritable *aptitude* à produire, à innover et à inventer. Les informations des premières données culturelles empruntées aux autres, se sont transmues, changées et devenues une couleur de la pensée, une « *sibgha* » propre à ceux qui les ont acquises. Une couleur qui leur est dès lors, intrinsèque, même si au départ, d'autres cultures ont participé à leur formation. C'est une opération d'alchimie qui s'est ainsi produite : du mélange de différents métaux/matériaux recueillis dans la durée, les sujets ont réussi à trouver leur propre métal précieux. L'élixir n'étant tout autre que cette volonté de quête du « *chay* » que nous avons expliqué. Rappelons ici que

l'alchimie chez ses inventeurs arabes, n'est pas seulement l'ancêtre de la chimie - discipline scientifique actuelle qui se base sur des mélanges savants de produits divers pour en créer d'autres - mais aussi et surtout une quête spirituelle d'un élixir symbolique qui n'a pas de matérialité. Il est de l'ordre de l'abstraction pure parce qu'il est transcendant à toute chose. Le langage de l'alchimie était celui de prédilection des mystiques musulmans dits « soufis. »

II. De la culture arabe

Le schéma décrit plus haut, s'applique tout fait à la culture arabe. Nous tenons à préciser avant toute chose que le terme « *arabe* » ne désigne ici en aucun cas une ethnie quelconque. Il s'applique à tous ceux qui parlent la langue arabe et qui pratiquent la culture arabe. Celle-ci, précisons-le, a été l'œuvre d'agents pluriethniques et de deux choses essentielles qui l'ont fondée en l'occurrence la religion musulmane et le legs des civilisations antérieures.

Les données de base existaient. Il s'agissait d'abord de les recueillir, de les traduire, de les comprendre, de les analyser et pour ainsi dire de les « digérer. » Il fallait en priorité se les approprier pour devenir ensuite détenteur et producteur de nouveaux savoirs scientifiques et culturels. L'entreprise n'était point simple et a demandé des efforts gigantesques et séculaires de la part de multiples populations venues d'Arabie, de Perse, d'Asie mineure, d'Afrique et d'ailleurs. Les cultures de la Mésopotamie, de la Grèce, de Byzance, de l'Inde et d'autres, ont été en effet sollicitées pour des emprunts scientifiques de valeur. Des hommes du pouvoir, des mécènes arabes vivant à Bagdad envoyèrent par exemple partout des savants à la recherche de manuscrits dans tous les domaines de la science. Ils créèrent des centres de recherche dont le plus important est celui de « Beyt al-hikma (ou Maison de la sagesse) dans la même ville où les traductions vers la langue arabe se multiplièrent. Les commentaires des écrits divers furent de même. Des auteurs de l'antiquité tels Aristote, Platon, Plotin et autres penseurs, furent à l'honneur en philosophie et influencèrent les savants musulmans même dans leur interprétation de leur religion. A l'époque abbasside, les Mu'tazilites, fondèrent une doctrine basée sur le rationalisme importé de la Grèce. Le khalife al-Ma'moun dont le règne dura de 813 à 833, la déclara officielle dans tout l'empire.

1. Les données religieuses

La religion fut révélée aux musulmans au premier siècle de l'hégire (VI^e siècle Chrétien). Les personnes-clés après le prophète, sont ses compagnons. Ces derniers étaient ses premiers apprenants. Appelés les « *Récitants* ou « *Qurra'* » parce qu'ils récitaient et apprenaient à leurs contemporains les versets coraniques qu'ils avaient eux-mêmes appris de la bouche du prophète, premier maître de l'islam. C'est la première chaîne de transmetteurs de la religion musulmane. Celle-ci apporta aux croyants une codification rigoureuse dans leur vie sociale et culturelle. Ils adoptèrent selon ses préceptes, une nouvelle manière d'appréhender le monde matériel et le monde spirituel. Il ne s'agissait pas seulement d'abandonner des cultes polythéistes et de croire en un Dieu unique et en sa Parole transmise par le Prophète, mais il fallait aussi dans la pratique, changer de comportement et se conformer à des règles sociales précises qui imposaient entre autres, le respect de soi-même, de la nature et des autres.

En diffusant par l'enseignement la nouvelle religion, les musulmans cherchèrent en même temps à mieux la comprendre, à l'expliquer et à l'explicitier. Un mouvement d'investigation sans précédent fut alors entrepris autour de cette volonté de compréhension et de connaissance des données religieuses de base apportées par le Coran et la Tradition (les faits et dits du prophète

qui eux, étaient distincts du texte sacré).

Après la mort du Prophète, des chercheurs enquêtèrent par exemple longuement avec des méthodes rigoureuses sur cette *Tradition* qui sera la deuxième source religieuse après le Coran. Ils consignèrent par écrit les règles de son authentification et les résultats auxquels ils sont parvenus. Une science nouvelle vit ainsi le jour, c'est celle du « *Hadith* » « ou Tradition. » Elle a permis aux croyants d'avoir un corpus sérieux des dits et faits du prophète même si par la suite, des données apocryphes ne lui ont pas été épargnées.

Avant d'être déclarés agents-clés et membres de la chaîne ininterrompue de la transmission de cette tradition, une étude systématique appelée « *tajrih* » ou chirurgie était faite sur leur vie, sur ceux qu'ils ont côtoyés, sur leur moralité, leurs comportements, leurs actes, leurs paroles et leur proximité spatiale et temporelle avec le Prophète lui-même ou avec ses Compagnons ou avec ceux qui étaient proches de ces derniers. Leur trajectoire de vie était passée au crible de la critique. Des comparaisons et des recoupements de leurs gestes, de leurs actes et paroles se faisaient en rapport avec le contexte dans lequel ils ont vécu. Tout cela pour établir l'authenticité d'une parole du prophète concernant telle ou telle fait ou explication religieuse qu'il aurait faite. L'influence des méthodes en science de la tradition, fut déterminante pour le développement des autres disciplines pour l'éthique du chercheur en général qui devait citer systématiquement ses sources sans les déformer avant de les soumettre à la critique de la raison.

La science de la Tradition (ou *'ilm al-hadith*) consistait à retrouver les mailles de la chaîne, à remonter à la source pour établir une vérité. C'était là une tâche de longue haleine qui était loin d'être aisée car elle relevait de l'étude des hommes, ces derniers étant complexes et changeants de nature. Néanmoins, un corpus considéré comme fiable fut établi grâce à l'objectivité et à la rigueur scientifique de multiples chercheurs qui ont comparé leurs travaux et consigné ce qu'ils ont considéré comme authentiques.

Cette objectivité et cette rigueur étaient à la mesure des conséquences de *la Tradition* pour la vie des croyants qui allaient lui faire confiance et désormais s'y référer. Ils l'interrogeaient pour « *l'iqtida* » (ou l'exemple). C'est après le Coran, leur modèle religieux le plus répandu et le plus pratiqué.

D'autres sciences spécifiquement musulmanes virent le jour. Ce sont par exemple, celle du « *fiqh* » (ou jurisprudence), celle de l'exégèse coranique ou celle de la langue arabe. Cette dernière se constitua un corpus monumental qui fut codifié tant sur le plan graphique que grammatical et morphologique, pour servir de véhicule aux autres disciplines.

Les savants musulmans s'adonnèrent à ces recherches non pas dans un but lucratif mais parce que leur religion les invitait à rechercher la science et à la développer comme dit plus haut. A ce titre, le mot science « *'ilm* », est récurrent dans le Coran. Le prophète avait lui-même insisté sur la nécessité de l'apprentissage de façon continue de la science. Cette apprentissage disait-il, devait se réaliser du berceau jusqu'au tombeau. A ce titre, c'est le pionnier de ce que nous appelons aujourd'hui, l'éducation permanente (*lifelong education pour les anglophones*) et ce que désigne la langue arabe par l'expression « *at tarbia al- mustamarra* », qui n'est tout autre que cette formation tout au long de la vie qui permet à l'être humain d'être à la hauteur de sa qualité d'humain, cultivant sans cesse son esprit pour agir avec raison et en toute connaissance de cause.

2. L'apport des civilisations antérieures

Parallèlement aux investigations scientifiques qui se faisaient autour de la religion, un recueil systématique des acquis culturels des autres civilisations s'organisait à une vaste échelle. Des particuliers comme des hommes de pouvoir, mécènes invétérés, finançaient des missions coûteuses et envoyaient partout des spécialistes pour acheter des manuscrits. A travers

Byzance, la Mésopotamie, la Perse, l'Inde et d'autres contrées, voyageaient des savants missionnaires en quête de rares trésors. Des manuscrits enfouis dans des temples ou conservés par des particuliers, sont payés à des prix exorbitants et ramenés vers des villes ou des centres de traduction qui se répandaient un peu partout, attirant des savants de multiples ethnies et origines. Ainsi furent rendus en arabe des textes de philosophie grecque, de mathématiques et d'astronomie toutes deux indiennes, de littérature persane, etc. Une véritable passion de la traduction des sciences dites « *dakhila* » (ou étrangères) s'empara des principales villes musulmanes. Les traducteurs furent en ce sens un véritable lien entre le monde ancien civilisé et le monde nouveau né avec l'avènement de l'Islam. Ils furent le levain et le levier qui aida la civilisation arabe à atteindre le haut degré que lui reconnaît l'histoire.

Les textes traduits étaient ensuite commentés, critiqués, exposés et discutés devant un large public souvent intéressé et averti. Des techniques et des codes spéciaux furent mis au point pour les « *munadharate* » (ou controverses) entre les savants et pour le « *jadal* » (ou dialectique) que les savants ont héritées des Grecs et qu'ils élevèrent au titre de « sciences » à part entière. Ils les utilisaient lors des rencontres publiques. Des conférences se donnaient en présence souvent des gens du pouvoir qui participaient eux-mêmes aux discussions. La pensée arabe était en ébullition agissant et stimulant de nouvelles idées, de nouvelles créations, de nouvelles manières de voir le monde, d'être et de penser.

Les écrits s'accumulèrent dans les centres de recherche, chez les libraires et dans les bibliothèques car beaucoup de savants encouragés par les riches mécènes, se sont mis à produire à leur tour, explicitant et critiquant une théorie ou développant et approuvant tels ou tels points de vue scientifiques importés. Ils ne s'arrêtèrent cependant pas à ce stade de réactions aux apports des cultures des autres. L'esprit d'investigation et de curiosité, créa des nouvelles richesses intellectuelles et scientifiques. C'est par l'exercice et les pratiques des « *sina'ates* » (ou techniques) que celles-ci se développent, nous a appris Ibn Khaldun dans l'ouvrage déjà cité. C'est ainsi que des créations spécifiquement arabes se multiplièrent dans diverses disciplines.

Après la quête des données à partir des autres cultures et leur traduction vers l'arabe, après leur compréhension et leur assimilation, une transmutation eut lieu et le processus de production suivit. Des savoirs nouveaux apparurent. L'apport des civilisations étrangères furent alors complétées par d'autres inventions. Des penseurs arabes ajoutèrent des idées nouvelles à la philosophie grecque. D'autres innovations capitales vinrent enrichir le patrimoine scientifique et culturel de l'humanité.

Le legs culturel arabe servit plus tard à la naissance d'une autre culture, celle de l'Occident. L'esprit d'observation et d'expérimentation qui est le moteur principal de la civilisation occidentale contemporaine et qui était dédaigné par les Grecs qui eux, rappelons-le, avaient privilégié la théorie et la pensée abstraite est un des principaux legs de la science arabe.

III. Des traditions de l'enseignement dans la culture arabe

Nous savons que des centres d'études et de recherches existaient avant l'avènement de l'Islam et les Arabes furent les premiers à profiter de leurs fruits. Celui de Gundishapur en Perse a servi d'exemple aux chercheurs de Bagdad et des autres villes musulmanes. Nous savons que le Lycée est grec. Mais concernant l'enseignement à une grande échelle, les véritables fondateurs et organisateurs furent sans conteste ces mêmes Arabes. Ils créèrent des institutions et organisèrent l'enseignement, mirent des codes pour les enseignants et les enseignés, installèrent une administration pour le soutien de la pédagogie, accordèrent des bourses aux étudiants et développèrent à travers le vaste monde de l'Islam, les échanges et la recherche scientifiques.

De plus, le corps professionnel était internationalisé. Seule la compétence était prise en compte dans le recrutement de ses enseignants chercheurs.

L'organisation de l'enseignement, de ses lieux, de ses subventions, de sa généralisation, de son évaluation, des règlements - que devaient suivre les enseignés et les enseignants - de ses théories pédagogiques, de l'administration, date des siècles d'or de la culture arabe, de cette période où la science était l'objectif de chacun et où les savants étaient honorés et protégés dans leur liberté de pensée et d'expression. Les hommes du pouvoir les craignaient parce qu'ils étaient réputés pour leur probité, leur droiture, leur sérieux, leur compétence et leur sens des valeurs.

L'organisation de la transmission du legs religieux et de l'héritage des savoirs étrangers, fut un moteur essentiel du développement de la civilisation arabe. La fonction de transmission ne pouvait en effet se réaliser pleinement sans organisation, sans méthodes, sans moyens. Tout cela a été mis en œuvre pour réaliser des objectifs de formation et de perfectionnement. Le terme même en arabe « *rabbaya* » (ou éduquer) veut dire élever, tendre vers la perfection et celle-ci est synonyme de Dieu lui-même. En s'éduquant, en éduquant les autres, les maîtres accompagnaient leurs élèves et leurs étudiants en tentant dans leur esprit, de les mener vers la perfection divine ! *Tendre vers* renvoie à un effort, à une volonté d'apprendre et de transmettre pour élever autrui et prétendre l'amener vers la perfection. Dans l'Encyclopédie de la langue arabe d'Ibn Mandhur (*Lisan al Arab*), l'éducation ou « *tarbiya* » signifie Dieu lui-même.

Suite à cette volonté d'éducation/perfection, une véritable tradition enseignante s'est installée dans le monde arabe et ce depuis le premier siècle de l'Islam. Nous pouvons relever les quelques exemples suivants qui sont mis au service de l'intérêt suprême accordé à la fonction de transmission.

1. Les lieux d'enseignement

Les mosquées

Ce sont les premiers endroits de culte qui furent naturellement utilisées dès le départ, comme salles de cours. C'était des lieux où étaient présents la solennité et le respect dus à la religion et au rang de la science en Islam. Le maître seul avait le droit de s'asseoir sur une chaire - d'où l'expression « professeur en chaire » qui a perduré et que nous utilisons encore aujourd'hui dans nos universités - autour de laquelle les enseignés formaient un cercle ou « *halaqa* » (pluriel : "*halakat*" qui veut dire cercles), pour l'écouter professer son cours. Les mosquées se sont multipliées à travers tout l'empire musulman. Elles ont servi à la fois l'expansion de la religion et le développement de l'enseignement et de la science. Les « *halaqat* » se spécialisaient dans telle ou telle matière et les auditeurs choisissaient librement leur discipline. L'histoire nous a gardé des noms de « *halaqat* » célèbres comme celle des grammairiens ou celle du « *fiqh* » qui était spécialisée dans les études de la jurisprudence.

Les maisons individuelles des savants

Étaient transformées aussi en lieux d'enseignement et de nombreux témoignages nous sont parvenus sur des savants enseignants de renommée, qui mettaient à la disposition de leurs enseignés leur propre domicile, pour leur apprendre bénévolement ce qu'ils ont appris eux-mêmes ;

Le « kuttab »

Équivalent de nos écoles-collèges d'aujourd'hui, était répandu un peu partout et répondait à l'engouement des Arabes pour l'instruction. Signalons que les Arabes étaient quasiment analphabètes à l'avènement de L'islam. Au départ, cette instruction était prise en charge par les

esclaves provenant de cultures développées, affranchis par les Musulmans et reconvertis en enseignants.

L'enseignement se généralisant, "le *kuttab*" devint un élément indispensable dans leur environnement urbain ou rural. Ils y envoyaient leurs enfants pour apprendre à lire, à écrire, à compter et à s'initier à la nouvelle religion, au raisonnement et à la réflexion par l'introduction d'autres disciplines. L'alphabétisation était quasi générale dans tout l'empire.

Les « *kuttab* » connurent là leur phase de gloire mais ils déclinèrent avec les troubles politiques qui advinrent par la suite dans le monde musulman. Dans certains endroits, l'enseignement secondaire et supérieur se raréfia à son tour et le « *kuttab* » - *tout en perdurant grâce à la volonté des populations qui tenaient à donner à sa progéniture les premiers éléments de l'instruction avec l'apprentissage de quelques sourates coraniques* – se mit à jouer le rôle au moins de l'école primaire et au plus celui du collège.

Les lieux de réunion

Appartenant aux gens du pouvoir, se transformaient en salles de cours et recevaient un public qui choisissait lui-même son enseignant et sa matière ;

Les bibliothèques

Accueillaient des lecteurs mais également des enseignants et enseignés et fonctionnaient aussi en tant que lieux d'enseignement pour le public ;

Les librairies faisaient parfois office de lieux d'enseignement ;

Les universités ou « *madaris* » (singulier : « *madrasa* ») existaient déjà au X^e siècle. Elles furent organisées au XII^e siècle à Bagdad « l'exemplaire », selon l'expression du grand orientaliste André Miquel, par un vizir de l'empire Nidham al-Mulk. Son exemple fut repris rapidement à travers tout le monde musulman.

Le bâtiment de l'université se composait de quatre grandes salles de cours pour les sciences religieuses, d'une bibliothèque, d'une aile spéciale pour l'enseignement de la médecine, de la pharmacie et des autres sciences dites rationnelles. A cela, il faut ajouter une salle de prière, un jardin, un internat pour les étudiants (environ une centaine de chambres), un bain une cuisine, une grande cour, des annexes (où sont logés les responsables administratifs gestionnaires de l'établissement), et un souk, marché dont les revenus recouvraient en partie les dépenses de la fondation.

Si les murs physiques des « *madaris* » ont subi les affres du temps et des guerres successives, un legs fut préservé. C'est celui de l'organisation de ces premières universités qui a perduré et de nos jours beaucoup d'établissements universitaires dans le monde gardent le même schéma.

2. Les subventions de l'enseignement

Les « *kuttab* » n'exigeaient pas de grands fonds et les enseignements étaient financés par les familles qui tenaient à donner une éducation de base à leur progéniture. C'était des écoles gérées par les parents d'élèves qui avaient un droit de regard sur le contenu et les méthodes de l'enseignement.

Dans les mosquées et les « *madaris* » où l'organisation des études était plus systématique, tout enseignement était financé par le « *waqf* » (ou don pieux). Ils consistaient en des marchés, des bains, des magasins, de l'immobilier de toute sorte. C'était une source de revenus permanents pour l'entretien des universités, pour les bourses des étudiants, pour la bonne marche des études. Aujourd'hui, dans certains pays avancés, on continue cette tradition et certaines universités privées fonctionnent avec des dons de particuliers et beaucoup d'Etats

modernes cherchent à se décharger actuellement quant aux subventions de l'enseignement sur des mécènes collectifs ou individuels.

3. L'organisation des études

La durée des études dans les « *kuttab* » pouvait aller généralement de l'âge de six/sept ans jusqu'à seize/ dix huit ans, après quoi l'enseigné pouvait aller rejoindre les « *halakat* » ou cercles des mosquées qui recevaient des étudiants de tout le monde musulman ou bien suivre un cycle de quatre années d'études à l'université qui le préparait à une fonction d'enseignant, de responsable administratif ou religieux par exemple. Des congés étaient fixes de manière hebdomadaire et suivaient le rythme des fêtes religieuses.

C'est surtout à l'intérieur des universités que l'enseignement fut organisé en cours de disciplines diverses répartis dans des salles séparées. C'est ainsi que se trouvèrent enseignées dans des salles différentes les sciences médicales et pharmaceutiques, les sciences du langage, les sciences religieuses: celles des lectures et de l'exégèse coranique, celle de la tradition du Prophète, celle des courants politico-religieux qui sont apparus dans l'histoire des musulmans.

4. Les acteurs de l'enseignement

Les acteurs étaient de trois catégories: les enseignés, les enseignants et le personnel administratif chargé de la bonne marche des études et de l'entretien du bâtiment.

Les enseignés étaient de toutes les catégories sociales et de toutes les régions, la science n'étant pas réservée en Islam à une élite quelconque. Le premier verset du Coran est une injonction pour l'apprentissage de cette science adressée à tous les croyants sans distinction ni de race ni de sexe. Les musulmans y répondirent en masse et généralisèrent l'enseignement à toutes les couches sociales et ethniques. Ce dernier fut accessible à tous et tout un chacun avait le droit de faire des études à la mosquée qui était un lieu ouvert à tous et où des savants de renommée venaient professer devant un public à l'appartenance sociale et raciale hétérogène. Lorsque les universités furent mises en place, les étudiants qui y étaient admis bénéficiaient d'un enseignement gratuit et d'une bourse pour subvenir à leurs besoins. Ils devaient seulement être sérieux, se plier à la réglementation de l'établissement qui stipulait surtout le respect d'autrui et la réussite dans les études.

Le corps enseignant se composait de professeurs, d'assistants et de lecteurs. Ces derniers assuraient le tutorat, rôle d'un corps enseignant réactualisé dans nos universités modernes car il permet un soutien aux étudiants qui les aide à mieux réussir.

La « *madrassa* » ou université, était dirigée par un président aidé par un directeur, par un secrétaire et un personnel divers, responsable de l'entretien de l'établissement et du bien être des étudiants et des enseignants: (médecins, cuisiniers, coiffeurs, gardiens, etc.)

5. Les objectifs de l'enseignement

Dépendaient du degré d'étude des enseignés. Dans les « *Kuttab* », le but était d'apprendre la langue, le calcul, la littérature et les fondements de la religion. Dans les mosquées et les « *madaris* », les objectifs étaient l'approfondissement des connaissances, l'acquisition de l'esprit critique et de synthèse et la capacité d'analyse, du savoir controverser sur des sujets divers. L'art oratoire était apprécié par les Arabes. Un objectif principal transcendait tous ces derniers, c'était «le rapprochement de Dieu auquel les musulmans donnaient la priorité dans leurs études. Rapprochement de Dieu qui rappelle ici la définition de l'éducation chez les Arabes. L'effort d'éducation tend vers le rapprochement de Dieu. L'enseignant et l'enseigné, devaient avoir ce même but. Toute science qui aurait un autre objectif final est vaine. Cela explique pourquoi les savants dispensaient pour la plupart, gratuitement leur savoir, assurant pour leur subsistance une autre fonction parallèle, de commerce ou d'agriculture par exemple.

Lorsque au le XII^e siècle, le vizir 'abbasside Nidham al-Mulk, organisa les universités comme nous l'avons déjà signalé, il fit appel aux meilleurs savants pour y assurer l'enseignement, des voix se sont élevées alors pour protester contre cette introduction du pouvoir dans un domaine qui relevait du ressort de tous les musulmans : une crainte de déviation des objectifs vers un canal idéologique était à la base de ces réserves. Les musulmans souhaitaient garder l'enseignement loin du politique et des influences partisans. Les savants et les enseignants aspiraient à une liberté et craignaient une récupération du pouvoir de leur fonction de transmetteurs. Fonction qu'ils assuraient pour la plupart sans contre partie, tirant tous, leur subsistance d'un autre métier comme nous l'avons souligné.

6. Les contenus de l'enseignement

La culture constituée à partir des données religieuses et de celles léguées par les autres civilisations, était indissociable de l'enseignement. Cette mémoire vivante était réactivée de façon incessante par des agents actifs qui rendaient accessibles les savoirs aux enseignés. Des pédagogues et des savants sélectionnaient, réélaboraient et réorganisaient sans cesse des contenus de cette culture qu'ils transmettaient de génération en génération. Des manuels à l'adresse de l'enseignement furent écrits pour faciliter la tâche de l'apprentissage et les curricula étaient choisis en fonction du niveau des élèves et des étudiants et aussi en rapport avec l'évolution de la culture et des sciences. Il faudrait cependant signaler encore une fois, l'importance non négligeable de la lutte des savants contre l'introduction progressive dans les programmes, de l'idéologie du pouvoir en place. L'indépendance des savants et des enseignants était considérée comme sacrée et l'Imam Sahnun qui professait à titre bénévole dans la ville de Kairouan, disait déjà au VIII^e siècle chrétien dans son épître célèbre sur l'enseignement, que le témoignage d'un savant qui se rend plus de trois fois chez l'homme de pouvoir, est considéré comme nul et non avvenu. Le témoignage en Islam étant ce qui définit d'abord le croyant.

Les savants ont toujours été le paravent et la frontière qui s'imposaient entre la puissance des grands et l'indépendance de l'enseignement qu'ils voulaient préserver contre l'influence de la politique. Ils avaient pour eux une opinion publique qui avait une très haute idée du « 'alim » (ou savant) et du côté sacré que leur a réservé la religion.

Ce débat sur l'enseignement et la politique est d'actualité et dans certaines démocraties où le curriculum national des études est en apparence exempt des orientations idéologiques, les sociologues découvrent des curricula cachés où par exemple pour l'Angleterre, le but sous-jacent des programmes appris dans les écoles est la défense du territoire et des intérêts de la nation.

7. Les méthodes d'enseignement

Dans le « *kuttab* », l'apprentissage par la répétition et la mémorisation était répandu. Dans les degrés supérieurs de l'enseignement, le cours magistral, dispensé par le professeur, était commenté et discuté par les étudiants avec les assistants. Les lecteurs l'explicitaient à ceux qui en avaient besoin.

Les étudiants assistaient aux conférences données par les savants et participaient d'autre part aux controverses organisées et dont ils apprenaient les règles à respecter. Au bout de quatre années d'études supérieures, l'étudiant devait être capable lui-même d'enseigner ce qu'on lui a transmis et au besoin controverser avec méthode autour d'un sujet scientifique donné. La controverse était considérée comme un stimulant pour l'esprit et un moyen de développer la science. C'est en effet avec l'esprit critique et grâce aux débats autour des sujets donnés que les scientifiques peuvent trouver la force pour avancer. Lorsque tout le monde est d'accord, il n'y a pas lieu de discuter, de chercher et de vouloir argumenter pour prouver quoique ce soit.

8. L'évaluation de l'enseignement

L'évaluation se pratiquait surtout au niveau des études supérieures. Elle était faite en fin de parcours par le cheikh (ou maître), qui pouvait décider à un moment donné, que son étudiant a assimilé son enseignement. Il lui délivrait alors une « *ijaza* » ou licence, l'autorisant à transmettre à d'autres ce qu'il a reçu de lui. Cette forme d'évaluation, a vu le jour vers la fin du VIII^e siècle et au début du IX^e siècle et engageait l'honneur et la réputation de celui qui la signait et de celui qui la recevait. C'est un témoignage sur la compétence scientifique de ce dernier dans une ou plusieurs disciplines scientifiques. Le formateur atteste que son étudiant a terminé sous son égide tel ou tel enseignement et est apte à le transmettre à son tour.

Aujourd'hui, l'attestation du professeur reprend de la valeur et est prise en considération par les milieux de l'emploi dans les pays anglophones surtout où l'on se fie au témoignage de l'enseignant. Il prend ainsi un certain poids dans le curriculum vitae de l'étudiant formé par lui.

« *Al-'ijaza* » c'est la licence. C'est donc une appréciation du formateur basée sur l'évaluation continue de l'enseigné. C'est aussi un permis d'enseigner les matières apprises et acquises par ce dernier. Les universités chrétiennes du Moyen âge ont, à leur tour délivré également la licence qui était aussi une autorisation de professer ; celle-ci était signée par le recteur. Cette tradition ne s'est pas interrompue et est vivace encore de nos jours dans les universités mondiales.

IV. Quelques idées pédagogiques

Les théories pédagogiques arabes doivent être situées dans un double axe synchronique et diachronique pour être comprises dans leur moment d'émergence et dans leur continuité dans l'histoire, même après ce qu'on a appelé la décadence de la civilisation arabo-musulmane

Concernant le premier axe, elles sont nées dans un contexte de grand développement scientifique et culturel qui exigeait de l'enseignement des méthodes à la hauteur. Même si l'excellence pédagogique n'était pas la caractéristique de tous ceux qui choisissaient le métier d'enseignant, cette exigence s'est maintenue durant huit siècles : du VI^e au XIV^e siècle de notre ère. Des théories pédagogiques se sont constituées pour soutenir l'enseignant dans sa tâche et pour permettre à l'enseigné de mieux assimiler ce qu'on lui apprend.

Des noms célèbres de savants qui se sont intéressés à la pratique de l'enseignement et qui ont produit des théories fondamentales pour la pédagogie, nous sont restés. Nous n'en citerons pour l'exemple, que quelques uns d'entre eux : al Imam Sahnun (VIII^e siècle), al-Al-Ghazali (XII^e siècle), An-Nawawi (XIII^e siècle), Ibn Jamaa (XIV^e siècle), Ibn Khaldun (XIV^e siècle).

La pédagogie elle-même n'était pas considérée comme une science précise, mais comme un art ou « *fan* » que l'enseignant devait acquérir et adapter à son enseignement. Les praticiens/théoriciens de l'enseignement dont nous avons cité quelques noms, étaient en même temps des grands savants. Ils écrivaient à partir de leurs observations et de leur vécu, des traités et des livres sur les meilleures façons d'enseigner et de former, sur les devoirs des enseignants et des enseignés. Ils élaboraient des théories pour aider les autres enseignants dans la tâche la plus noble qui soit, disent-ils.

1. Sahnun et son fils au VIII^e siècle se sont intéressés en tant qu'enseignants et savants à la pédagogie. *Le livre de l'enseignant et de l'enseigné* de Shanun, reprend et complète les idées d'un savant qui lui avait précédé, nommé Al-Qabici. C'est un essai d'organisation de l'enseignement primaire. L'auteur pose les bases d'une pédagogie cohérente qui prendra en compte l'élève en priorité, qui remettrait en question les châtiments corporels et les injustices que le maître pouvait pratiquer entre les enfants. Il préconise la progression dans

l'enseignement et la prise en compte du niveau psychologique de l'élève. Il appelle à une éthique de l'enseignant qui sauvegarderait l'esprit de probité, d'honnêteté intellectuelle et d'équité face à ses enseignés, quelle que soit leur origine sociale ou ethnique.

2. Plus tard, au XII^e siècle, un autre savant, Abu Hamid al-Ghazali - (philosophe et théologien de renom qui a produit beaucoup d'ouvrages où il réfléchissait sur l'histoire des sciences analysant leurs méthodes et leurs théories en cherchant à établir leur sens ainsi que leur vérité - dans son monumental ouvrage de théologie « *Ihya' umum ad-din* » (ou Revivification des sciences religieuses ou Renaissance des sciences religieuses), rappelle le rôle de la science et sa noblesse. Il pose également les bases d'un code de l'enseignant et de l'enseigné. Il donne les règles nécessaires pour l'apprentissage correct de la science. Il précise que la plus importante au départ, est celle de la connaissance de l'objectif de cet apprentissage qui doit être défini et accepté des deux parties. La pédagogie dite par objectif qui se pratique dans l'enseignement contemporain insiste également sur ce point fondamental et donne des résultats remarquables là où elle est appliquée. Car elle permet à l'enseignant et à son élève de comprendre, de suivre le même but et de ne pas se perdre.

Après al-Ghazali, d'autres auteurs du moyen âge arabe, se sont également intéressés à la pédagogie, parmi lesquels, trois grands noms émergent.

3. An-Nawawi (XIII^esiècle), dans son « *Kitab al-Majmu'* », s'intéresse quant à lui à l'enseignement supérieur et de ses idées, nous pouvons retenir deux choses essentielles : la nécessité de la formation continue de l'enseignant et la relation de ce dernier avec les enseignés. Pour lui, l'éducation permanente est le propre du maître, ce qui l'oblige à avoir une relation constante avec la science. L'enseignant est lui-même le meilleur élève qui soit. Il doit étudier en permanence: lire, commenter des textes et classer les données. L'homme demeure savant tant qu'il apprend. S'il abandonne cette recherche, croyant qu'il se suffit de ce qu'il possède, il stagnera et deviendra l'être le plus ignorant qui puisse exister.

L'enseignant doit puiser ses connaissances là où il les trouve et auprès de n'importe quel savant, dans les livres ou auprès des hommes sans considération de leur origine, de leur rang, de leur âge ou de leur croyance. L'auteur cite à ce propos une parole du prophète qui dit : « la sagesse est le but de tout croyant, il la prend là où elle se trouve ». Pour lui, l'enseignant doit être curieux, il ne doit pas hésiter à poser des questions sur ce qu'il ignore et ne doit pas avoir honte de son ignorance. Reconnaître son ignorance, ne diminue en rien de sa valeur ; au contraire, cela prouve sa grandeur car c'est en connaissant ses limites et en interrogeant les autres, ceux qui savent, qu'il peut se perfectionner et transmettre à son tour des données solides.

Pour une bonne transmission, l'auteur insiste sur la fonction intrinsèque de l'enseignant : celle de la recherche constante. Apprendre aux autres ne peut aller sans apprendre soi-même de façon permanente. L'enseignant qui ne renouvelle pas ses connaissances, qui ne les met pas à jour, ne peut transmettre un enseignement valable et ses premières victimes, seront ses étudiants.

An-Nawawi introduit aussi l'obligation de la pluridisciplinarité pour l'enseignant qui, en s'adonnant constamment à la recherche, doit approfondir non seulement sa matière mais développer aussi une culture générale qui lui est nécessaire. Connaître sa propre discipline ne suffit pas à faire de lui un bon enseignant; il doit s'ouvrir sur les autres matières et avoir une idée générale et actualisée sur les autres sciences dont il doit au moins connaître l'essentiel de leur contenu et de leur méthode. C'est par la formation continue dans sa spécialité, par la recherche constante d'informations essentielles sur les autres disciplines et leur évolution que l'enseignant pourra échapper au « *jumud* » ou stagnation, nous dit-il. Dans sa relation avec les enseignés, le maître doit être humble, sans familiarité, respectueux, avoir sur le plan physique une bonne apparence, ses habits devant être propres sans pour autant être coûteux.

Dans sa pratique enseignante, il doit prendre en compte les différences individuelles de ses étudiants et mesurer leurs points de faiblesse et de force, car chaque enseigné présente des possibilités physiques et psychiques différentes. Les individus ne sont pas une masse compacte et homogène dans leurs capacités d'apprentissage. L'enseignant doit comprendre ces différences et cette hétérogénéité et en prendre compte dans son enseignement; il doit expliquer à chacun selon ses possibilités d'assimilation et selon son niveau de mémorisation et d'intelligence.

Il y a, explique l'auteur, trois catégories d'élèves: ceux qui comprennent très vite, ceux qui ont besoin de plus d'explications et ceux dont l'esprit demande plus de répétition, d'explication et donc plus de patience de la part de l'enseignant. Le maître donnera à chacun ce qui lui convient, ne surchargeant en rien celui qui ne peut le supporter et ne privant en rien celui qui est capable de bien l'assimiler.

La progression dans l'apprentissage est ainsi recommandée par an-Nawawi qui explique les étapes de cette dernière et les intérêts qu'elle présente. Il parle aussi de l'évaluation des enseignés et demande au maître de les encourager et de les pousser vers l'habitude de l'effort et de la persévérance. C'est là le véritable sens de l'éducation. Dans les écrits d'Ibn Jamaa et d'Ibn Khaldun, nous retrouvons les principales idées développées par les pédagogues postérieurs que nous avons cités mais qu'ils ont complétées à leur manière et selon le contexte de leur époque.

4. Ibn Jamaa (XIV^e siècle), nous propose quant à lui, un règlement complet de la vie universitaire et un code complet de conduite à l'adresse des enseignants et des étudiants. Il va jusqu'à proposer pour ces derniers la manière de s'alimenter et de gérer l'emploi de leur temps où il y a des plages de repos et d'autres de travail. Il leur recommande par exemple, d'apprendre ses leçons tôt le matin lorsque l'esprit est dispos et frais, de ne pas abuser de nourriture qui alourdirait leur esprit, de se promener et de se reposer lorsqu'ils en sentent le besoin.

5. Ibn Khaldun (XIV^e siècle) cité plus haut – est le fondateur de plusieurs sciences modernes dont la sociologie, l'histoire en tant que science indépendante, et l'éducation comparée, etc. - nous retrouvons tant les idées développées avant lui et autour desquelles il y a un consensus des savants-pédagogues, que d'autres qui sont nouvelles et de son cru. Il revient sur celle de la prise en compte par l'enseignant du niveau psychologique et physique de l'enfant et insiste sur l'utilisation de la progression dans l'acte d'apprentissage. Il déconseille les châtiments corporels qui poussent les élèves vers l'insolence, la paresse et le mensonge. Il cite le khalife Harun ar-Rachid qui avait demandé au précepteur de son fils d'apprendre à ce dernier la science sans le mortifier.

L'auteur conseille d'autre part à l'étudiant de voyager pour parfaire ses connaissances auprès des savants. Plus ces derniers sont nombreux, plus sa formation sera solide parce qu'il aura appris à comparer, à synthétiser et à faire des choix. Celui qui connaîtra plusieurs maîtres, apprendra à faire la différence entre leurs terminologies et distinguera celles-ci de la véritable science nous affirme-t-il ; il comprendra que le vocabulaire n'en est que le moyen. La connaissance apprise de la bouche des savants est de toute façon meilleure que celle acquise directement des livres. D'ailleurs, nous précise-t-il, trop de livres, nuisent au départ à l'instruction et à l'apprentissage.

Ibn Khaldun critique la méthode qui exige de l'étudiant la lecture de tous les ouvrages qui se rapportent à sa spécialité. Or, insiste-t-il, une vie entière ne suffirait pas à connaître la littérature qui s'y rapporte. Il remet en cause également la multiplication des manuels résumant les grandes œuvres que l'étudiant devait apprendre. Ces condensés de telle ou telle matière, nuisent à la clarté de la science elle-même et à son exposé. Ils sont préjudiciables au débutant

car ils lui présentent les résultats sans qu'il y soit préparé. Trop de ces manuels résumant une science, rendent donc cette dernière difficile pour celui qui veut l'apprendre. Mieux vaut faire ses études sous l'égide d'un maître. Le contact avec les savants et leur oralité sont très bénéfiques à l'étudiant. Le cours en présentiel est salvateur pour l'apprentissage.

Aujourd'hui ces idées ne sont point caduques et les chercheurs en éducation parlent du rôle des cours en présentiel dans la réussite de l'étudiant. La relation entre l'enseignant et les enseignés est très importante dans l'acte d'apprentissage. Sans les maîtres, il n'y a pas de véritable enseignement. Les nouvelles technologies d'information et de communication sont très utiles à l'enseignant comme à l'enseigné, mais ils demeurent des instruments au service de la pédagogie et ne peuvent en aucun cas remplacer le maître. Les voies qui affirment le contraire sont à notre sens en deçà d'une quelconque compréhension de la complexité de l'être humain qui a besoin justement d'autres êtres humains bien réels pour apprendre et pour avancer dans la voie de la connaissance.

Conclusion

Nous avons essayé dans ce qui a précédé, de donner d'une part, un aperçu sur l'élaboration de la culture en général, sur sa construction et sur celle spécifique de la civilisation arabe, et d'autre part de faire un tour d'horizon très synthétique sur un contenu important de cette dernière ainsi que sur l'enseignement et la tradition pédagogique qui l'accompagnent et dont nous retrouvons le prolongement dans l'éducation formelle universelle aujourd'hui. Les universités étaient au départ une création arabe et depuis des siècles, le monde entier a pris le pas pour fonder partout les mêmes institutions avec la même organisation à la fois administrative et d'enseignement.

Nous avons tenté de démontrer que les cultures ne connaissent pas de frontières entre elles. Ce sont les choses au monde les mieux partagées malgré les barrières érigées par les hommes dans leur esprit ou sur leur terre. L'ethnocentrisme développé chez certains au cours des siècles et qui est encore d'actualité avec tous ses stéréotypes, ses préjugés, son racisme et ses rejets de l'autre, est contraire à la notion même de culture qui elle, vit et survit grâce en grande partie aux emprunts des autres cultures et est de ce fait tolérante et ouverte sur les autres civilisations passées ou présentes. La culture arabe s'est nourrie des autres cultures qui lui étaient antérieures et a elle-même nourri les cultures qui lui ont succédé. L'art en Occident doit en grande partie ses richesses à d'autres formes d'art. Celui de l'Afrique, dit « premier » ou « primitif » - parce qu'il a précédé tous les autres arts - a été fondateur pour celui de beaucoup d'artistes célèbres dans le monde d'hier et d'aujourd'hui.

Pour conclure ce que nous venons de voir brièvement et qui demande à être développé, voici une citation que nous empruntons à Le Thanh Khoi (1981) qui nous interpelle quant au legs que les Arabes nous ont laissé et quant aux emprunts culturels que peuvent se faire les civilisations - notamment celles du pourtour de la Méditerranée, cette « *mare nostrum* » chère à Fernand Braudel - qui ont de tout temps partagé ce qu'elles ont cultivé dans tous les domaines, sur le plan des productions manuelles comme sur celui de la pensée et de l'art en général.

« Sait-on que les premières universités européennes subirent l'influence directe des institutions arabo-musulmanes ? Le rôle de la médecine islamique était très net dans la première université européenne, celle de Salerno en Italie du Sud (XI^e siècle). La seconde, Bologne, devint célèbre pour son enseignement (XII^e siècle). La troisième, Paris (1208) servira de modèle à Oxford et Cambridge. Toutes ces universités possédaient des traits de leurs prédécesseurs musulmans : patronage religieux, autonomie et internationalité des professeurs et des étudiants,

enseignement à la fois général et professionnel... C'est par l'Italie et surtout l'Espagne que s'est transmis cet héritage : cette dernière était l'un des grands centres académiques de l'Islam (le collège-mosquée de Cordoue était créé au début du X^e siècle), après la reconquête, les chrétiens traduisirent les œuvres scientifiques et médicales arabes en latin à l'usage de la communauté savante européenne. »

D'autres savants tirent aujourd'hui l'alarme sur l'oubli de ce legs culturel arabe dans les manuels scolaires. L'historien médiéviste, Alain De Libéra (1996) demande à ce que les élèves des écoles soient initiés à ce legs qui s'inscrit dans leur identité et dans la grande histoire de l'humanité. C'est à notre sens un pas vers la tolérance et la paix.

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About the Author

Aïcha MAHERZI is Professor in the Department of Education and Training. She is a researcher in UMR EFTS (Unité Mixte de Recherche en Education, Formation, Travail et Savoir) at University of Toulouse II, holds two doctorates (State doctorat es Lettres et Sciences Humaines and doctorat degree of Literature et civilisation arabo-musulmanes) from Sorbonne, University in Paris. Author of many publications in the social and humanities, Prof. Maherzi is also a poet and writer. She is a visiting professor at several universities in the world, she has served during 20 years as Consulting Editor of *International Review of Education* (UNESCO) and consultant

in the UN for ethics. She is Past President of Mediterranean Society of Comparative Education (MESCE) and currently is the founding President of Mondial Association of Peace by Comparative Education which she represents, as a member of the Executive Committee in the World Council of Comparative Education Societies (WCCES) where she assumes many responsibilities including Associate Editor of the *Global Comparative Education* journal, Chair of the Standing Committee of Research, and current Standing Chair of the Professional Ethics Committee. She has lectured extensively on topics including comparative education, peace education, cultural anthropology, gender, sociology, medieval history, comparative literature, epistemology and research methodology, among many others.

Global Perspectives on international student experiences in higher education by Krishna Bista Routledge Research in Higher Education, 2019

Nigel Bagnall

University of Sydney

There is no shortage of books and articles relating to international study abroad in the 21st century. Without a doubt, the majority of them are dealing with one or two aspects of the massive growth and movement of students who wish to spend a period of time abroad and taking a look at other ways of being and doing things. The edited book that Krishna Bista has just published through Routledge is certainly one for all those thinking of entering into the world of international education. Whether as a student, academic or administrator working in an institution such as a university, college of higher education, this book has a lot to offer.

The book is very well organised and the range of authors contributing is diverse and shows a considerable number of aspects of the sorts of problems and benefits of undertaking a period of time overseas. Having said that, there are 78 reviewers who helped with the editing of chapters for the book, and of these all but 13 were from the United States. Because the number one host nation for international students is the USA their perspective may be warranted in view of the reviewers for the book mainly coming from there. A few more reviewers from the other top host providers, namely United Kingdom, Australia, China and Canada, in that order, may have given a slightly different perspective within the book.

Many students have little choice about leaving home to continue studying abroad through social or political events at home and it can be assumed that the majority are seeking an opportunity to expand their horizons and return to their home country at some time in the future. However, there is a strong thread running through the book that potentially students on completing their degrees abroad may attempt to stay on and work in the host nation. The brain drain that was talked of in the 1960s and seventies seems to have been changed into a more global connection with the market across many countries, not just those who host students in higher education pursuits. The borders are certainly more fluid for workers with companies pursuing many graduates before they even finish studying.

The author does an excellent job in the opening chapter of placing the student rather than the institutions they are hoping to enter as the key protagonists in the process. "... International students and scholars are real people with real life experiences that encounter issues and challenges while staying and studying in another country whether they are of Asian or European, African, or American origins." (Bista, 2019).

The author continues to point out how studies show that domestic students are generally treated differently to local students. Unequal treatment of international students was intensified by national attitudes that situated international students in the eyes of the 'host' communities as deficits who had "... a set of identifiable and correctable problems." (Lee & Rice, 2007, p. 338).

The book is not one that you would read from cover to cover and feel that you were a world expert on international students. That book has yet to be written!! It is a book, however, that touches on a range of the multiple aspects of complexity that pervade the neo-liberal economic agendas that see the movement of international students as something more than just a way to balance the books economically. The real-life examples chosen high light the complexity of intercultural exchange that underpins this massive movement of students, academics and ideas with no sign of abating soon.

The overarching message from this book is that the international student market is a contested field. No longer can Universities take part in a few international field days and expect the students to roll up. It is a contested field with many universities pursuing students actively all year round. Entry points to particular semesters or terms are fluid and students studying internationally have choices. A chapter by an Australian, Steve Nerlich, found that initially he had assumed that students across different fields would be going to different study destinations for different durations and that a number of motives would be uncovered. Instead, his findings support those of others in the literature that "... the benefits of studying abroad seem largely generic and have more to do with being abroad, irrespective of students of students domestic study programs or the nature of their intended study abroad experience." (in Bista, 2019 p.187)

One final point that is made by Bista in the introductory chapter is the number of new countries such as Russia, China and Germany joining the number of host destinations. The top host nations continue to be the United States, the United Kingdom, Australia, France and Canada.

While not saying that there are no problems associated with larger cohorts of international students studying abroad, the chapter by Bhochhibhoya and Branscum looks closely at mental health issues that may arise for some international students studying abroad in the United States. They found that previous studies looking at international students health have documented that they suffer from high levels of psychological stress. They cite Magid, Maclean, and Colder (2007) who suggested that "... the number of personality aspects and traits can impact risky behaviors such as sensation seeking and impulsivity, which in turn have been identified as strong predictors of alcohol consumption." (in Bista, 2019 p.243)

The book certainly fills a rather large hole in the understanding of what the students who are ultimately the benefactors or victims of a plethora of countries offering exchanges gain from the experience.

Profile of a Comparative and International Education Leader: Carlos Alberta Torres¹

Deborah Shin

University of California, Los Angeles (UCLA), USA

Yuqing Hou

University of California, Los Angeles (UCLA), USA

This is a profile of Carlos Alberto Torres, an influential leader in the field of comparative and international education (CIE). It provides a biographical background of his upbringing and educational experience in Argentina, Mexico, Canada, and the United States. This article also documents his substantive and prolific scholarship and impact on CIE and his career trajectory to leadership positions in several international academic organizations, including his presidency in the Comparative and International Education Society (1997-1998) and the World Council of Comparative Education Societies (2013-2016). This article documents Carlos' contributions to the development of a political sociology of education, and global citizenship education, in addition to his work on Latin American Education, CIE and multiculturalism. With the delineation of his upbringing, career path, and intellectual contributions, the article further highlights the advice he provides to young scholars who are considering a potential career in CIE.

Keywords: Carlos Alberto Torres, Comparative and International Education, Leadership, Political Sociology of Education, CIES, WCCES, Latin American Studies, Critical Theory, Global Citizenship Education

نبذة عن كارلوس ألبرتو توريس، أحد القادة المؤثرين في مجال التعليم المقارن والدولي (CIE). تتمثل في سيرة ذاتية لتجربته التعليمية وتربيته في الأرجنتين والمكسيك وكندا والولايات المتحدة. يوثق هذا المقال أيضًا منحه الدراسية الموضوعية والغزيرة وأثره على CIE ومساره المهني في مناصب قيادية في العديد من المنظمات الأكاديمية الدولية، بما في ذلك رئاسته في جمعية التعليم المقارن والدولية (1998-1997) والمجلس العالمي لجمعيات التعليم المقارن (2013-2016). توثق هذه المقالة إسهامات كارلوس في تطوير علم الاجتماع السياسي للتعليم، وتعليم المواطنة العالمية، بالإضافة إلى عمله في تعليم أمريكا اللاتينية، CIE وأيضًا التعددية الثقافية. مع تحديد تربيته ومساره الوظيفي وإسهاماته الفكرية، كما

¹ This profile draws heavily from two interviews conducted by the authors with Carlos Alberto Torres on May 24 and April 1, 2019. All of the uncited direct quotes in this profile derive from these interviews.

يسلط المقال الضوء أيضًا على النصيحة التي يقدمها للعلماء الشباب الذين يفكرون في مهنة محتملة في
.CIE

此文是比较与国际教育（CIE）领域有影响力的领军人物--卡洛斯·阿尔贝托·托雷斯（Carlos Alberto Torres）的个人背景资料。本文提供了卡洛斯在阿根廷，墨西哥，加拿大和美国的成长和教育经历的传记背景。本文还记录了他的众多重要的学术成就及其对CIE的影响，也描述了他在多个国际学术组织中担任领导职务的职业历程，包括他在比较国际教育学会（1997-1998）和世界比较教育学会理事会（2013-2016）担任主席。本文记录了卡洛斯（Carlos）在拉丁美洲教育，CIE和多元文化主义方面的工作，以及其对政治社会学和全球公民教育发展的贡献。通过描述卡洛斯的成长轨迹，职业道路和学术贡献，本文更是突出了卡洛斯对正在考虑在CIE从事潜在职业的年轻学者提出的良多建议。

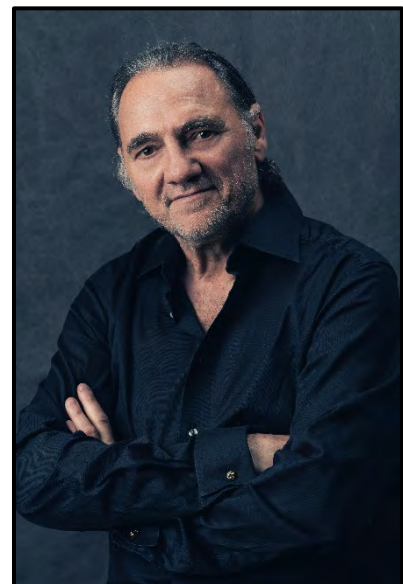
Ceci est un portrait de Carlos Alberto Torres, un leader influent dans le domaine de l'éducation comparée et internationale (ECI). Il fournit une base biographique de son éducation et de son expérience éducative en Argentine, au Mexique, au Canada et aux États-Unis. Cet article parle également de ses recherches substantielles et prolifiques et son impact sur l'ECI, ainsi que sa trajectoire de carrière aux postes de direction dans plusieurs organisations universitaires internationales, notamment sa présidence de la Société de l'éducation comparée et internationale (1997-1998) et du Conseil mondial des sociétés d'éducation comparée (2013-2016). Cet article décrit les contributions de Carlos au développement d'une sociologie politique de l'éducation et de l'éducation à la citoyenneté mondiale, en plus de ses travaux sur l'éducation en Amérique latine, l'ECI et le multiculturalisme. A partir de la description de son éducation, de son cheminement de carrière et de ses contributions intellectuelles, l'article souligne davantage les conseils qu'il donne aux jeunes chercheurs qui envisagent une carrière dans l'ECI.

Данная статья является биографическим очерком Карлоса Альберто Торреса, влиятельного лидера в области сравнительного и международного образования (СІЕ). Эта статья предоставляет биографическую справку о его воспитании и образовательном опыте в Аргентине, Мексике, Канаде и Соединенных Штатах, а также документирует его существенную и плодотворную научную деятельность и влияние на СІЕ и его карьерную траекторию до руководящих должностей в нескольких международных академических организациях, включая его председательство в Обществе сравнительного и международного образования (1997-1998) и Всемирном совете обществ сравнительного образования (2013-2016). Кроме того, в статье документируется вклад Карлоса в развитие политической социологии образования и образования в области глобального гражданства, в дополнение к его работе по латиноамериканскому образованию, СІЕ и мультикультурализму. Наряду с описанием его воспитания, карьеры и интеллектуального вклада, в статье можно почерпнуть советы, которые он дает молодым ученым, рассматривающие потенциальную карьеру в СІЕ.

Este es el perfil de Carlos Alberto Torres, in líder influyente en el campo de la Educación Comparada Internacional (ECI). Proporciona antecedentes biográficos de su educación y experiencia en Argentina, México, Canadá y Estados Unidos. Este artículo también documenta su importante y prolífica beca e impacto en la ECI y su trayectoria profesional en puestos de liderazgo en varias organizaciones académicas internacionales, incluida su presidencia en la Sociedad de Educación Comparada e Internacional, CIES (1997-1998), y el Consejo Mundial de Sociedades de Educación Comparada (2013-2016). Este artículo registra las contribuciones de Carlos al desarrollo de una sociología política de la educación, a la ciudadanía educativa global, sumando a su trabajo sobre la educación Latinoamericana, la ECI y el multiculturalismo. Con la descripción de su educación, su trayectoria profesional y contribuciones intelectuales, el artículo destaca aún más el consejo que le brinda a los jóvenes académicos que están considerando una posible carrera en EIC.

Introduction

This is a profile of Carlos Alberto Torres, an influential leader and critical theorist in the field of Comparative and International Education (CIE). He is currently a Distinguished Professor of Education at Graduate School of Education & Information Studies (GSEIS), University of California, Los Angeles (UCLA) and serves as the UNESCO Chair on Global Learning and Global Citizenship Education at UCLA since 2016. He also held the presidency in the Comparative & International Education Society (CIES) (1997-1998) and the World Council of Comparative Education Societies (WCCES) (2013-2016). This profile documents his career path and intellectual scholarship in CIE, as well as his empirical and theoretical research on exploring the relationship between education and the state, and frameworks of the Political Sociology of Education. Moreover, the article underscores his prominent leadership in the field of CIE and his lifelong commitment to education for liberation and social change at local and global levels.



Carlos A. Torres in Los Angeles, 2019. Photo courtesy of Carlos A. Torres.

Early Years in Argentina and Mexico

In 1950, Carlos was born in a working-class family in a shanty town of Buenos Aires, Argentina. His mother worked in a local shoe factory, and his father was unemployed when he was born. Then his father managed to have a fruit stand at a market, but it was destroyed soon due to the economic crisis in 1952. When Carlos was five years old, the family's living conditions were slightly improved upon moving to a lower middle-class neighborhood where his aunt lived. Carlos attended a Catholic elementary school there and spent the rest of his childhood in a small neighborhood named Flores. Proximity being the major factor in the selection of schools, Carlos attended a secondary school in Flores as well. As Carlos puts it, the secondary school he attended was a community-based school where parents in the neighborhood provided financial support and some of them even served as teachers in the

school. Accounting and law were the two academic tracks provided at the school, and Carlos chose the latter since he was expected to be a future lawyer. He had a gift for reading fast and developing compelling arguments, and he thought law would be more suitable for him than accounting.

When Carlos first got exposed to courses like sociology and political economy, he demonstrated keen interest and talent in them. Carlos described that he felt like he could understand the content in those books very easily. He did not perform well during the first few years in high school; however, he worked very hard from his fourth year and became a successful student in the school. He excelled particularly in the political economy class, although it was not much of a desired course for many other students at the time. At home, Carlos' parents gave him an extraordinary amount of love and support when he was growing up. His father, who especially valued education, greatly encouraged him to have a college degree, although he only completed limited years of formal education.

The enduring backdrop of political violence and class struggle in Argentina of the time shaped Carlos' most vivid memory of his childhood and youth. There was a military takeover as soon as he attended elementary school in 1956. In 1966, a dictatorship regime ruled the government, and it was eventually replaced with a democratic administration, marked by the nation's election in 1973. However, democracy only lasted for three years, and it was disrupted in 1976 by a furious *coup d'état*, which resulted in another ruthless authoritarian dictatorship reoccupying the country at the price of thousands of deaths. The constant political turmoil in Carlos' upbringing in Argentina profoundly influenced his perception of democracy, power, and the state since his early years. The violent social and political context led him to fiercely denounce hegemony and totalitarianism. He developed unshakable faith in the importance of building democratic structures for a government and a state. This belief became central to his later perception and scholarship on CIE.

When Carlos graduated from secondary school in 1968, he was already a leading member of Argentina's Leadership of a Catholic youth group, which became one of the first groups of Liberation Theology in the country. The organization he joined aimed to establish a new view on religion and politics by practicing what they preach in the community to benefit the people (Torres 2016). This experience provided a critical process for Carlos to become a political sociologist later on. With such passionate engagement in the community work, he left for Colombia to be a missionary for one year and lived several months so he could be trained to become a priest. After returning from Colombia, he began his higher education at the Jesuit University of El Salvador (Universidad del Salvador) in Argentina, which at the time had the best School of Sociology in the country. During his college years, Carlos was deeply influenced by several critical theorists such as Georg Wilhelm Friedrich Hegel, Karl Marx, Jürgen Habermas, Herbert Marcuse, and Frantz Fanon, which laid a solid foundation for him to analyze and re-invent the works of Paulo Freire (Torres 2016). Freire is a Brazilian educator and critical social theorist, who became a friend, colleague, and the most important mentor to Carlos later in his life. In 1974, he received a Bachelor of the Arts with honors in Sociology and a Teaching Credential in Sociology and became the first one in his family who held a college degree. Carlos had many jobs prior to his academic career. For example, he once worked in a bank while attending college to make ends meet. He also taught religious studies for several years in a Catholic school. His academic career started out when he worked as the Secretary-General for Estudio de la Ciencia en América Latina (ECLA), a prestigious social sciences-oriented research institute.

After college, Carlos received several teaching positions to teach Philosophy or Social Science in a couple of Argentine universities. He also had an opportunity to teach adult education in a

teacher education program. In spite of the chaotic social and political environment, the exposure to the works of critical social theorists including Freire inspired Carlos to build a commune and a Freirean school in Patagonia, a southern side rural area in Argentina. However, those entirely utopian and communitarian attempts ended up in failure (Torres 2016). In 1975, a few friends of Carlos were assassinated because of their involvement in the commune and other literacy programs. Another horrific event that blew his mind was the slaughter of a famous human rights lawyer who was killed a few days later. These fatal episodes prompted Carlos to believe that he and his family would be in danger if they did not leave Argentina. The subsequent deadly incidents proved that leaving the country was a life-saving decision. In 1976, he eventually decided to exile in Mexico with his then-wife and three children. With a scholarship, he began graduate studies at the Latin American Faculty of Social Science (FLACSO) in Mexico. Prior to his exile, Carlos had already finished his first book *Lectura Crítica de Paulo Freire (Critical Reading of Paulo Freire)*. Due to the political turmoil in Argentina, this book on Freire was finally published in Mexico in 1978 and in Portuguese in Brazil.

As Carlos describes, the experience of exile in Mexico is “a profound experience of learning” (Torres 2016, p. 237). He was then a graduate student studying Political Science at FLACSO and earned his Master of Arts degree in 1978. After completing graduate studies, he worked as an Associate Professor and researcher for Secretariat of Public Education at Universidad Pedagógica Nacional (National Pedagogic University) in Mexico since 1979. In the same year in Mexico, Carlos began to serve as a director for the Department of Educational Research focusing on Adult Education until 1980. The learning and working experience in Mexico also inspired Carlos to deepen an understanding of the relationship between power and education. He further developed theories around the role of the state and education policies. Carlos had several publications back then, mostly in Spanish and Portuguese. Besides a discussion for Latin American education, these earlier works concentrated on important aspects of Freire’s thoughts and critical pedagogy.

Charting a Path in CIE

With a full fellowship, Carlos went to Stanford University in the United States in 1980. He first obtained a second master’s degree in International Development Education, and then he continued doctoral studies in the same program, which marked the beginning of his formal career in the field of CIE. In 1983, he earned a doctorate from Stanford with completing a dissertation titled “Educational Policy Formation and the Mexican Corporatist State: A Study of Adult Education Policy and Planning in Mexico (1970-1982).” For Carlos, studying and conducting research in the U.S. was both bitter and sweet. On the one hand, he spoke no English before coming to Stanford. Therefore, taking classes, writing academic papers, and doing the research in the English language by learning it from scratch was a massive



At Stanford in 1982 with his family on the graduation day. Left to right: Laura Silvina, Carlos A. Torres, Dr. María Cristina Pons, Pablo Sebastian, and Carlos Alberto. Photo courtesy of Carlos A. Torres.

challenge for him. Moreover, Carlos needed time to make sense of a new culture and particularly the dynamics around diversity in the U.S. which is closely linked to his learning and teaching in higher education institutions. In addition to navigating the new language and culture, he also needed to raise three children, which placed another burden on him (Torres 2016).

On the other hand, the Anglo-Saxon scholarship tradition provided him with a more in-depth understanding of the positivism-oriented epistemological foundations in the U.S. educational research. U.S.-based critical theorists such as Michael Apple, Gloria Ladson-Billings, Martin Carnoy, Herbert Gintis, Maxine Green, Joel Samoff, and Henry (Hank) Levin also enlightened him to reflect on American social liberalism (Torres 2016). A new presidential administration in the United States set the stage for the 1980s, where neoconservatism and later the model of neoliberalism became predominant. It had profound local and global implications on social policies and reforms at varying levels. Being aware of this change, Carlos took the initiative to respond to neoliberalism discourses with radical critiques in publications through a perspective of Latin American education. During this time, apart from editing several books in Spanish and Portuguese with a focus on adult education and the works of Freire, Carlos began to produce publications in English. “Adult Education Policy, Capitalist Development, and Class Alliance: Latin America and Mexico” is one of his earliest English articles published in the *International Journal of Political Education* (1983).



Carlos A. Torres in Managua, Nicaragua, in the 50th anniversary of the assassination of César Augusto Sandino, 21 of February 1984. Carlos was conducting research on the new Nicaraguan revolution. Photo courtesy of Carlos A. Torres.

After graduating from Stanford, Carlos served as the Vice-President of the Research Committee on Political Education for International Political Science Association (IPSA). In 1984, he returned to Mexico and worked as a Professor at FLACSO until 1986. During this period, he constructed the initial layout of the theories in the Political Sociology of Education. Specifically, Carlos developed the theories of the state and argued that education policies were served as the compensatory legitimation of a state if it faced deficit legitimacy. He noted that the formation and transformation of a state's nature would directly act on educational policies, reforms, and practices (Torres 2016). Adult education policies, in this sense, were precisely positioned as a method of compensatory legitimation for the state to make up citizens lost political rights and increase their loyalty. Aligning with Carlos' fundamental theories in the Political Sociology of Education, his intellectual scholarship at the time paid particular attention to adult education in Latin America. He also discussed the relationship between education and political power in *Poder Político y Educación en México (Political power and education in Mexico)* (Pescador and Torres 1985)

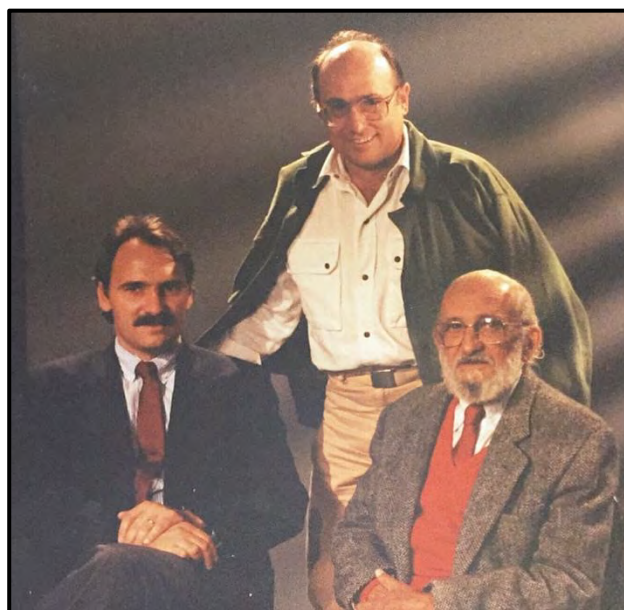
After years in Mexico, Carlos came back to the U.S. and worked at World College West in California as a Fulbright Scholar. In 1986, he received the Izaak Walton Killam Memorial Scholarship to begin his Post-Doctoral research in the Centre for International Education and Development (CIED) at the University of Alberta in Canada. During this period, he continued his work and research on adult education by conducting comparative studies on adult learning policies in Canada, Mexico, and Tanzania. Generously funded by the International Development Centre (IDRC), Carlos and his colleagues argued that there were three different

models of adult education policies among those countries (Torres 2016). However, they agreed that adult education was considered as a tool in those different countries to accumulate capital and increase their political legitimation (Torres 2016). The reason was that the noted adult education programs and policies only upgraded learners' technical skills without empowering them (Torres 2016). This sense of deep-rooted bureaucratic rationality and dominant instrumental ideology made him feel very disenchanting about further engaging in related research about adult learning.

Carlos was quite prolific during his Canadian period. He published several papers with his colleagues based on the research project on comparative adult education. In 1990, he published *The Politics of Nonformal Education in Latin America* (1988), which further developed his theories in the Political Sociology of Education and revisited the relationship between the state and non-formal education in Latin America. He also produced several publications at this point centering upon the critiques of capitalism and neoliberalism and discussed how these structures could impact educational policy-making. Carlos then worked as an advisor to Freire when Freire had his tenure as the Secretary of Education in São Paulo for two years since 1989. Beginning in 1988, he became an Assistant Professor in the Department of Educational Foundations at the University of Alberta until he went to UCLA in 1990. At UCLA, he initially worked as an Assistant Professor at the Graduate School of Education. He rose to full Professor in UCLA's Graduate School of Education and Information Studies in 1994. One year later, he served as a director at the Latin American Center at UCLA until 2005. During his years at UCLA, he continued to produce scholarly work on criticizing neoliberalism and educational injustice. He paid close attention to globalization and social movements, and their impact on educational reform and citizenship education.

Impact on the CIE Field

Carlos expressed in his application to the presidency of WCCES that the main areas of his theoretical research focus on “the relationship between culture and power, the interrelationships of economic, political, and cultural spheres, and the multiple and contradictory dynamics of power among and within social movements that make education a site of permanent conflict and struggle” (2013). Having done comparative studies on adult education and education policy in multiple countries, his empirical research proceeded onto the impact of globalization in different parts of the world, especially on higher education. His lived experiences shaped his theoretical and empirical research agenda, ultimately resulting in the development of the Political Sociology of Education—his main contribution to the field of CIE. The three major elements of his academic career are his authority as a scholar of Latin American education in comparative perspective, his work on Freire, and the invention of the Political Sociology of Education. While his scholarly achievements earned him a place in



Left to right: Carlos A. Torres, Moacir Gadotti, and Paulo Freire during an interview conducted for the TV dos Trabalhadores in 1990. During the event, Carlos interviewed Freire, and Gadotti watched the interview. The interview was afterwards published as a book chapter. Photo courtesy of Carlos A. Torres.

various leadership positions in the field, his administrative skills and fearless visions for the organizations were recognized with the prestige that follows his executive titles.

Born in Argentina, educated in Mexico, heavily influenced by a Brazilian philosopher, Carlos' work naturally looked at various parts of Latin America. Carlos has spent much of his foregrounding academic career in Latin American studies. As a counter offer to his Endowed Chair and Deanship offered by another university, Carlos became Director of the Latin American Center in 1995, which is now the UCLA Latin American Institute. During his involvement as the Director of the Latin American Center, Carlos also served as the Chair of the Commission on Education and Society of the Latin American Council of Social Sciences (CLACSO). As the Director of the Center, Carlos has brought in more than two million dollars of research funding during his decade-long tenure. As an Organized Research Unit of the University of California, paramount research projects on Latin America were conducted under his leadership. He had produced comparative studies on various levels and types of education including adult education, popular education, higher education, and teacher education across Latin America, linking the political struggles and social changes that went on. While his work still questioned the role of the state and power, he began to look more into citizenship during this time. His research agenda reflects the process of social changes and the transition into the topic of citizenship can be explained by a natural account that once a democratic government are held accountable, naturally, the rights and the responsibility of the people should also begin to be held accountable as well.

Carlos is also known to be the principal biographer of Freire, and many of the published works of Carlos involve investigating and expanding the work of Freire. As a teacher, he was tremendously attached to critical studies in education, especially that of Freire. Amongst the critical theorists that Carlos studied to become a political sociologist, Freire has heavily influenced Carlos both as a guiding role model as well as a subject of research and analysis. Having been a political exile himself, he received a calling by Freire's *Pedagogy of the Oppressed* to become a global public intellectual with a pedagogical and political agenda. More than a dozen of his writings are on Freire, including the most recent publications he has been working on. Carlos and Freire were involved in various educational activities together, including Freire's request to invite Carlos as his advisor during his service as the Secretary of Education of the City of São Paulo, Brazil in 1989. Freire praised Carlos' critical analysis of Freire's epistemological and philosophical perspectives. With Freire himself, Carlos co-founded the Paulo Freire Institute in Sao Paulo, Brazil in 1991. Freire became a very close personal friend of Carlos. The rather sudden death of Freire in 1997 brought immense sadness that it was difficult for Carlos to bare. Buried in depression, Carlos wrote *Education, Democracy and Multiculturalism: Dilemmas of Citizenship in a Global World* (1998) to cope with the death of Freire. The book is translated into multiple languages and is one of his major publications that contributed to the field of CIE.

Even after the death of Freire, Carlos continued to commemorate him by establishing the Paulo Freire Institute (PFI) at UCLA in 2002 with financial and administrative support from the Dean and the Chair. The PFI has been expanded to multiple continents, and now resides in various countries. Founded with his students with whom Carlos still keeps close contact with, the UCLA PFI is home of the California Association for Freirean Educators (CAFE). The UCLA PFI hosts a student-organized CAFE conference every year where students, teachers, scholars, practitioners all gather to discuss ways to *reinvent* Freire. CAFE brings together the communities as can be seen in the workshops that PFI provides to the educators such as "Teachers as Displaced Laborers" and other workshops on transformative education to empower teachers. Every summer, the PFI also organizes the International Summer Institute which was attended by more than 300 graduate students and teachers from Taiwan, Korea,

Denmark, Belize, Egypt, and Italy. When asked about his greatest accomplishment, he proudly said that it is when he had received the UCLA Graduate School of Education & Information Studies Best Teaching Award in 2012.



Left to right: Yumeng Chen, Hongyan Chen, Ana Elvira Steinbach Torres, Carlos A. Torres, Zhengmei Peng, Lauren Ila Misiaszek, Gang Zhu, and Li Deng at a presentation Carlos gave titled “The Development and Challenge of Global Multicultural Education” at East China Normal University (ECNU), Shanghai, China, 27 March 2019. Photo courtesy of Carlos A. Torres.

Carlos recalls that he instantly grasped the concepts of political economy when he first encountered the subject, and soon began teaching his peers as he was the only who understood it all. Such easiness of understanding the complex theoretical concepts continues his attraction to other topics that were significant in his life experiences to become building blocks for the Political Sociology of Education. Trained as a sociologist, his work focused on factors of social stratification. His main interest on class and market structures that attributed to the formation of class, such as capitalism, neoliberalism, and even globalism can be explained by his meager upbringing and his globetrotter experiences along with numerous international students he has advised. His lived experience to escape from a dictatorship is also reflected in his work on investigating the role of the state, examining the structure of power—the hegemony in various levels of spheres. Many of his early works involved research on policy, as he had also worked for the government of Mexico in the early years of his professional career and was an ad hoc adviser of the Government of Argentina in the 1990s. His research at the time was to provide guidance for practitioners and policymakers on the issues of development as his doctoral study was on international development.

Carlos has examined various factors of hegemony that impedes democracy and various forms of identities that structure inequality. His theoretical training on classical sociology of European scholars who mainly looked at class as the source of discrimination in addition to his own upbringing and lived experiences with poverty can be used to explain his focus on the economic structure of society and how it impacts individuals as well as the state, and the globe. The growing impact of globalization led him to collaborate with Robert Rhoads on *The University, State and Markets. The Political Economy of Globalization in the Americas* (2006). To expand from Freire’s criticism received by feminist and critical race scholars for not being able to expand his view of marginalized communities beyond class, Carlos examined how cultural identities also form a structural inequality with globalism. He became more aware of the power of culture and the impact of cultural identities as he expanded his cultural

experiences himself outside of Latin America. His book with Raymond Morrow, *Social Theory and Education Social Theory and Education: A Critique of Theories of Social and Cultural Reproduction* (1995) has become a standard text on theories and meta-theories in Sociology of Education in many schools. With social justice as the underlying goal, many works of Carlos contain critical interpretations of cultural and social reproduction theory, theories of the state, and analyses of multiculturalism, feminism, and other approaches to social diversity, inequality, and the struggle for social justice education.

Carlos has been recognized as a leader in the CIE field through various organizations. He became the President of the Comparative International Education Society (CIES) in 1997, after serving on the Executive Committee as the Vice-President-Elect, and then as the Vice-President. His creativity can be examined not only on his theoretical approach and the invention of the Political Sociology of Education but also in his years of serving at CIES as well. As a keynote presentation for CIES one year, Carlos wrote a play on the *Pedagogy of the Oppressed*, his students produced and performed the play. When organizing the annual CIES conference in Mexico City, he created a course on organizing a conference, and worked with his students to put together the conference in 1998. The Conference attracted more than 800 participants and Carlos was able to provide funding for more than 20 graduate students to attend the conference. Being a multi-disciplinary scholar, he was also involved in Sociology and Political Science as his academic training involved in both. Carlos served twice as a President for the Research Committee of Sociology of Education of the International Sociological Association (1998-2006), during which he had expanded the board members to be from greater parts of the world. Carlos is honored to have been the President of the board which initiated with Pierre Bourdieu as the President while Basil Bernstein served also as President. Upon his tenure as the president of CIES, Carlos served as a liaison on behalf of the CIES to the WCCES. As the president of WCCES, Carlos sought to bridge the gaps between the South and the North by bringing more voices of the South to discuss issues of diversity, social justice, and multiculturalism in education. He wanted to bring together various institutions and organizations of different levels to work for the development of society. Carlos also strived to connect the field of comparative and international education with ethnic studies, gender studies, and area studies. He had finished his tenure as the president of WCCES in 2016.

Carlos views education as an intervention. As a scholar with a big picture vision who is always updated in the global current affairs, Carlos began to examine the impact of globalization by investigating the global dynamics of the structure of power and the role of supranational, multilateral organizations. He had had chances to be involved in the global policy making sphere earlier in his career, but the cause he decided to be committed is global citizenship and the Sustainable Development Goals (SDG) of UNESCO. In 2016, Carlos has been appointed as the UNESCO-UCLA Chair in Global Learning and Global Citizenship Education—this is the only UNESCO Chair in the University of California system. His research on citizenship had always been linked to multiculturalism in the past. In recent years, issues around Global Citizenship Education (GCE) has been on the top of his research agenda



Carlos A. Torres giving the first issue of Global Commons Review to the former UNESCO Director-General Irina Bokova. It was for the “UNESCO Week for Peace and Sustainable Development: The Role of Education,” which took place in Ottawa, Canada, March 2017. Photo courtesy of Carlos A. Torres.

as can be seen on his works *Theoretical and Empirical Foundations of Critical Global Citizenship Education* (Torres 2017) and *Global Citizenship Education and the Crises of Multiculturalism: Comparative Perspectives* (Tarozzi and Torres 2016). He also initiated a journal called the *Global Commons Review* to provide a platform for practitioners of GCE to share and inspire one another on issues of implementing SDG in their communities (see globalcommonsreview.org).

Carlos received the Honorary Fellows Award by CIES in 2019. Created to honor senior members who had significantly contributed to the field of CIE through a period of life-long achievement of scholarship, teaching, research, and technical service. All of his work strives for social change to deter from social reproduction. Carlos has authored or edited more than 60 books and more than 200 research articles and book chapters. *Comparative Education: The Dialectics of the Global and the Local*, (2009), a book Carlos edited with Robert Arnove (now in its fourth edition with Stephen Franz as third co-editor, 2013, and fifth edition in progress in two volumes by Arnove, Torres and Misiaszek, is claimed to be the textbook of choice for more than 50 Comparative Education programs internationally. He has lectured in many different parts of the world, given speeches in universities, academic conferences, international symposiums, and multilateral organizations including the United Nations in New York City. His works have influenced not only scholars and researchers but also practitioners, policymakers, and international leaders. Carlos has been highly productive for decades and received accolades, but when asked to identify the peak of his professional path, Carlos answered that perhaps he has yet peaked.

Closing Remarks: Advice to the future generation

Carlos is not only an academic writer but also a poet and fiction writer. He explained that the work of fiction allows him to freely explore things and ideas that are outside of the limitations of reality. His love for literature gives him a source of creativity, just as his passion for woodwork brings him much appreciation for structure and organization, and his care for gardening and beekeeping inspires him to explore a planetary approach to seek beyond anthropological perspective. Carlos recommends that students should read and study the classical theorists to establish strong scholarly foundations to grow from. As a natural writer, he believes that much more energy and time are needed to prepare for writing than the process of writing itself. When advising his students, he highly discourages students working



Carlos A. Torres, giving the acceptance speech for the Honorary Fellow Award during CIES Award Ceremony in 2019. Photo courtesy of Carlos A. Torres.



Carlos A. Torres, with Professor Huang Zhicheng, the most important Freirean expert in China, with Freire's picture in the Institute of International and Comparative Education of ECNU. Photo courtesy of Carlos A. Torres.

outside of their academic research area during the stage of the proposal, because he believes that the planning stage requires the most concentration and energy. As someone who can write for hours in one sitting, he enjoys the process of writing more than the sense of accomplishment with the end product. He claimed that he is always ready to move on to the next project as soon as he is done writing one, as he always has multiple projects at hand, and he enjoys having a diverse extension of his thoughts. What new scholars should seek to learn from him is his endless passion for so many things that always comes back to his research. Carlos reflected that he did not have a pre-conceived plan to achieve everything he had accomplished, but his willingness to stay tuned to the world and ability to learn new things had allowed for flexibility to always progress and move forward.

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About the Authors

Deborah Shin is a PhD student in Social Science and Comparative Education at UCLA Graduate School of Education and Information Studies. She serves as an editorial assistant for the Global Commons Review magazine. She has experiences working on education programs with UNESCO, UNESCO-UCLA Chair Office, and the Paulo Freire Institute at UCLA. She holds a Master's in Public Policy from the KDI School of Public Policy and Management, and a BA in Sociology from the University of California, Riverside. Her current research focuses on Global Citizenship Education as a means to reduce and prevent social injustice, inequities, and discrimination.

Yuqing Hou is a second-year PhD student in the Social Science and Comparative Education division of the Graduate School of Education and Information Studies at UCLA. She holds a BA in International Studies and Education Studies, and MA in Secondary Education, both from Brandeis University. Her research interests include Global Citizenship Education and comparative education between China and the United States and international students' education. She is involved in a couple of projects in Paulo Freire Institute at UCLA.

Appendix: Paulo Freire Letter to Marvin Alkin on Behalf of Carlos A. Torres, 29
September 1991

São Paulo, Brasil, September 29, 1991.

Professor Marvin Alkin
Chair
Department of Education
Graduate School of Education
University of California-Los Angeles
405 Hilgard Avenue
Los Angeles, California 90024

Fax: (213) 206-6293

Dear Professor Alkin:

I have been asked to comment on Dr. Carlos Alberto Torres academic work, in regard to his application for promotion to Associate Professor with tenure. I am very happy to do so.

I have known Dr. Torres since we started exchanging letters and research papers in 1975. I was then working for the World Congress of Churches in Geneva, and he was doing research on my *Pedagogy of the Oppressed*, in his native country, Argentina. I had the opportunity to meet him personally in Brazil, 1980. Since then, I have had the opportunity to participate with him in many educational activities, and I know him and his family very well.

From the out set, let me say that I am exceptionally impressed with his commitment to scholarship, the depth and originality of his analysis, and his sound character. An exceptionally productive scholar, he has written and/or edited four books about my own pedagogy and philosophy of education. I consider this work as a serious contribution to the understanding of my thought. Three of his books in Spanish have also been translated and published in Brazil.

I find Dr. Torres writings very systematic, rigorously organized, and imaginative. The exegesis and criticisms of my work is helping him to draw his own innovative and analytical approach to pedagogy and politics in Latin America. Although he is not a philosopher by training, he has been able to discuss critically my epistemological and philosophical perspective, drawing on his own clearly formulated analytical model which is rooted in Critical Theory.

A political sociologist by training, Dr. Torres has addressed correctly the key sociological issues I have discussed in my own work.

Dr. Torres is fairly unique also in the sense that he combines the Latin American intellectual tradition - with his training in analytical-empirical sciences in a leading

American University. At Stanford University, Dr. Torres learned methodological techniques and social theories which allow him to link quantitative and qualitative analyses. The combination of these two intellectual traditions, enhances the depth of his analysis and the richness of his work.

A researcher by training and vocation, Dr. Torres has published numerous research articles in refereed journals, and many books. I have read some of his most recent work including *The Politics of Nonformal education in Latin America* and *The State, Corporatist Politics and Education* contributions to scholarship.

Dr. Torres' research on political sociology of education has becoming influential in Latin America, and three of his books are currently being translated by prestigious publishers in Brazil. In fact, I have such a high regard for his work, that I have accepted to engage with him in many hours of conversations about my life, work and ideas, for a forthcoming book that Dr. Torres is writing on my educational perspective. Judging for the first four chapters I have seen, I believe this book will be landmark in studies in critical pedagogy.

Dr. Torres' ability as a researcher does not preclude him to be a very effective teacher. He has strong communication skills, and a extraordinary ability to work with other colleagues and students. I think he has a strong commitment to teaching. Many of his former students have told me that they were very fortunate having Dr. Torres as their teacher or adviser.


In addition to be an excellent scholar, researcher and teacher, Dr. Torres is a forceful organizer. He has immense energy, great discipline, and good administrative and planning skills. These skills and his intellectual capacity have helped him to organize a number of excellent academic meetings. For instance, I still remember very well the meeting he almost single-handedly organized while still being a doctoral student at Stanford University in 1983. The meeting was co-chaired by Carlos Torres and Professor Martin Carnoy. The idea of this meeting was to discuss my work. Thanks to Carlos' dynamic leadership, the meeting evolved onto a major dialogue about pedagogy and politics. Dr. Torres, Jointly with Professor Arturo Pacheco, an excellent Chicano Philosopher, and Professor Carnoy, have organized prior to my arrival, a two-weeks seminar to discuss at length with the participants, the historical, political, epistemological and educational aspects of my work. When I encountered the group, I felt that such a meeting was one of the best I have ever participated. During the next two weeks, I had a fantastic time, with challenging questions and comments from participants and organizers.

I experienced a similar feeling of satisfaction with Dr. Torres organization of a series of symposiums at the American Educational Research Association (AERA) meeting in Chicago, last April. I was invited by Dr. Torres to participate in the AERA meeting, and afterwards to deliver the Charlie Chang Lecture at the Graduate School of Education at UCLA. The intellectual minds of graduate students and faculty at UCLA- Graduate School of Education. But, I insist, it also should be credited to Dr. Torres tremendous organizational skills, research agenda and intellectual vision.

In brief, I consider Dr. Carlos A. Torres a distinguished scholar who, very early in his academic career, has already established himself as one of the best experts in the field of education in Latin America. He is highly regarded in comparative education, and UCLA is very fortunate to have him on the faculty.

In closing, let me emphasize that at my university, the Catholic University of São Paulo, Dr. Torres ~~would~~ be placed very high in the academic rank, as a full professor. I will strongly support his promotion with tenure, most enthusiastically and without qualification.

Sincerely yours,


Professor Paulo Freire
Rua Valença, 170
São Paulo, (01.254), Brazil.