

Collaborative Teams for Self Publishing - A Model for Creating Locally Relevant Educational Books

Tom J. McConnell¹ and Barbara Giorgio-Booher²

Abstract

Transforming education may mean creating new instructional materials that are culturally relevant to local schools. Producing new high-quality materials may seem out of reach to educators who lack experience in illustration and publishing or have little access to commercial publishers. We share a model used to develop a series of books called *Conservation Tales* in collaboration with university faculty, students, and scientists. The model presents a way for local educators to create books to make education more relevant and accessible for children. The model leverages skills of artists, writers, and content experts to provide a rich learning experience for readers and an affordable option for self-publishing. Using this model, a science educator developed books for grades 3-5 with illustrations and photographs. University students developed images, created page layouts and co-authored the stories to suit the target audience. Scientists collaborated in the development and review of content for accuracy and education students created learning activities. This article describes the collaborative model with examples and shares the processes for self-publishing of print and digital books via online on-demand print services. We discuss sites that allow authors to create books with almost no overhead budget and share information about the quality of graphics, software for creating files, and distribution of books.

Keywords: Self-publishing, Culturally relevant books, Collaborative writing

Introduction

"There is no technological reason why all the educational course books, and indeed most of the supplementary ones, at both primary and secondary level, should not be written, edited, designed, printed, and published in Africa rather than in London, Malta, Paris or Hong Kong." (Nottingham, 1969)

At the first World Conference on Transformative Education (WCTE) in 2018, discussion touched on ways to help nations in Africa and other parts of the world to "decolonialize" their education systems. Literature on the topic has described the role of education in the colonialization of Africa as one of "killing of other knowledge systems" (Hall & Tandon, 2017, p. 6), and the role it can play in rebuilding and reclaiming an indigenous culture to support the decolonization of social and government institutions (Akena, 2012; Mazrui, 2002;

Mbure, 1997).

The literature makes it clear that by controlling educational content, colonial powers molded perceptions among African children about their role in society, the hierarchy of social structure, and even their own intellectual capacity, creativity, and language (Asante-Darko, 2002). Printed materials used in schools present stereotypical characters that portray men and women or people of color with specific roles in communities (Khorana, 1998). They reinforce rules about what languages are acceptable, and relative values placed on cultures from Africa versus those from Europe and North America.

One way in which African schools reflect a colonial mindset was described by Wilfridah Mucherah in the opening plenary session of the 2018 WCTE. She questioned why African schools continue to teach reading using primers written from a European perspective – for example, "A is for Apple." She learned to read using this common approach, yet never saw an apple until she attended graduate school in the United States as an

Full listing of authors and contacts can be found at the end of this article.



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adult. She proposed that African schools should use resources that reflect African contexts, languages and culture (Mucherah & Mbogori, 2019). For instance, in communities where avocados are so common, she suggested that reading books for young children could show that “A is for Avocado,” using an example that is tangible and relevant to the children’s experiences. Pandey and Moorad (2003) refer to the same goal when they emphasize that knowledge gained by pupils is dependent on their experiences, culture and language. Reformers suggest that if educational materials are developed with this assumption in mind, changes to pedagogies and educational structures may follow (Pandey & Moorad, 2003; Wooman, 2001).

Throughout the rest of the WCTE, participants in concurrent sessions mentioned Mucherah’s “A is for Apple” example as evidence that African schools need more control over the content of textbooks and supplemental materials (readers) used in the classroom. These discussions made clear the need for new and different educational materials for African schools, developed by African authors and educators for an African audience to reflect African culture, language and historical context. In this article, we present a structural framework for independent publishing that might offer a model for educators, illustrators, graphic designers and scholars in any region of the world. We present the model with the goal of encouraging collaborative teams to pursue the goals articulated by Mucherah & Mbogori (2019), Akena (2012) and many other academicians who share our goal of transforming education around the globe.

Educational Publishing for the African Continent

The idea of African authors publishing books for an African audience is certainly not new. The quote from Nottingham’s 1969 article about “establishing an African publishing industry” makes it clear that scholars and businessmen alike were considering ways to overcome obstacles to publishing in Africa half a century ago. There is a significant body of literature about efforts to create just such an industry. These efforts take the form of university-based presses (Darko-Ampen, 2004), indigenous and multinational publishing houses (Edwards & Ngwaru, 2012; Rosetti, 2013) and non-profit publishing consortia like the African Book Collective (Shercliff, 2016; Zell, 2016).

Early initiatives to establish an African publishing industry were less successful than Nottingham had hoped. Scholarly journals were usually owned by

American or European interests, and maintained the same “traditions” of content and process as their American and European counterparts (Darko-Ampen, 2004; Zell, 2016), including selecting European-language manuscripts based on profitability and their relevance to large industrialized nations (Darko-Ampen, 2004; Dilevko & Dali, 2006). It seems clear that an industry that continues to operate using the traditional model has stifled transformation by continuing the status quo of the industry. Even so, there may be advantages to publishing books in Africa. The list of titles offered by the non-profit African Book Collective features many titles by and for Africans, including a growing list of titles for children that reflect indigenous culture, language and art.

Frustration with educational publishing controlled by external businesses from non-African countries is not new. The publishing industry in Africa has not entirely erased all of the barriers that make it hard for African authors to publish books, but it continues to evolve. Nottingham said in 1969 that “Indigenous publishing in Africa is at the crossroads” (p. 141). Indigenous publishing in Africa, and around the world, is being transformed by business models that leverage technologies not available in 1969. The doors are open if only a handful of individuals with a vision for indigenous books are willing to step out of the traditional box to take advantage of the opportunities at hand.

New Opportunities in Self-Publishing

The new opportunities of which we speak involve a model of self-publishing that reduces overhead costs of publication to such a degree that small groups of partners can produce and distribute books with minimal initial investments. For authors writing for relatively small audiences, this is a major advantage. In the traditional model, publishing a book required time, expertise, and significant financial backing. The most cost-effective model for publishing a book required “runs” of 500 or 1000 books, or more. The initial expense of a large run drove publishing houses to avoid ventures that might only reach a small group of readers. Independent authors were pushed out of the publishing process altogether unless they could risk spending thousands of dollars for the first (and maybe only) run of a book. Self-publishers now have the option of working with “on-demand” print services that eliminate this barrier to the industry.

Some traditional academics have viewed self-publishing as a less-than-desirable process designed to



by-pass the rigorous scholarly process of editorial review. However, self-publishing has grown because of financial considerations and the desire to control copyrights (Odendaal, 2008). As digital printing technology made it possible for companies to print and bind small runs of books at low costs, on-demand services have emerged as a growing part of the industry (Laquintano, 2016).

Today's technology not only allows publishing from anywhere in the world, but also greater collaboration of individuals in different locations. Authors can now easily work with illustrators, editors, graphic designers and photographers from around the world. Technology also offers new opportunities to create digital books offered as downloadable files for computers, tablets or smartphones. These "ebooks" promise even lower overhead costs, and allow authors to reach a global audience in an instant.

With these opportunities in mind, we share our experiences and offer recommendations for creating collaborative teams to publish high-quality culturally relevant books for learning. The model we present is the result of four years of development for the *Conservation Tales* project, an immersive learning program at Ball State University in Indiana, USA.

A Framework for Collaborative Book Development

The *Conservation Tales* project began as an idea for a children's book about wildlife conservation, a niche that was largely unfilled. The initial idea emerged when Dr. McConnell researched books about wildlife for young children. He noticed that the books did not mention conservation issues or teach children how their actions impact the environment. Readers can find out more about the book series at the [Conservation Tales](#) website. To date, the project has published eleven unique titles, two "Junior" versions revised for younger children, and an education game that teaches skills used by manatee researchers.

As the author began outlining the first story of a series of books, he recognized a need for other partners to help produce the book. He inquired about illustration students at his university's School of Art, and a partnership emerged that became a comprehensive team effort. The first partnership included Barbara Giorgio-Booher, a Teaching Professor in the School of Art, and an animation student, Sami Pfaff, who helped illustrate the first book. Bringing an illustrator into the project was an essential step in creating quality reading material for children.

Graphic design is another key element of a book requiring specialized expertise in graphic design and communications that most authors lack. "Both graphic design and graphic communication incorporate words and images to convey data, concepts, and emotions" ([Shake It Up Creative, 2018](#)). Graphic designers are trained to design work that is effective in projecting ideas and experiences with visual and textual content.

Graphic designers understand typography, the selection of fonts, and work with images, such as drawings and photographs; they help maintain consistency throughout a story and book series. This includes both digital and printed promotional materials and educational resources. They help in designing a visual identity system to define graphic design standards; including fonts, logos, the relative size, proportion, and position of individual elements, and the selection of a color palette. Typography, the selection of fonts, is more important and more complex than most people realize. When writing for young readers, font size and the choice serif versus sans serif font is extremely important, especially when writing for a specific language (Nottingham, 1969). Including a graphic design specialist will ensure continuity, a high standard of quality, and a clear, consistent identity that appears across all media.

Potential authors and publishers should keep in mind that this framework is a flexible model. Collaborations will be most successful if they base their teams on the availability of participants with skill sets that enhance the quality of the book.

The current *Conservation Tales* team consists of the following roles:

- *Lead Author* – author, director, editor of the project.
- *Art Director* – visual artist to supervise and critique illustrations, photographs, and graphic design to meet certain performance expectations.
- *Graphic Designer* – team manager who coordinates the team's progress and sets appropriate deadlines. Responsible for cover design and layout of text and images in the final product.
- *Co-Author* – content or education specialist to assist in researching and writing the story.
- *Two or Three Illustrators* – specialists in illustrating characters, animals, backgrounds and natural environments.
- *Photographer* – expert who documents team site visits, contributes and edits photographs, searches for public domain images, and document permissions for third party images.



Recruiting Team Members

The team leaders are ultimately responsible for the creative concept of the book. The project goals are set by these leaders, with input from other team members. The directors must work to create a cohesive team. Any group planning a self-published book should identify a small group of two or three directors. For the *Conservation Tales* project, a key feature of the pair of directors is a shared vision for the project's goals. Without this, the project may not be sustainable.

Recruiting other team members is a critical factor in the project's success. For the *Conservation Tales*, these books are created by undergraduate students at the directors' university. The choice to recruit students dictates the scope of available team members. Other projects may choose to include other types of professionals. Students were recruited from the major disciplines of visual communication (graphic design), animation, drawing, photography, elementary education, special education, biology and environmental management. This choice affects overhead costs, but the "right team" for your project may include people with extensive experience.

The directors implemented a selective recruiting and application process. They advertised for team members with a request for letters of interest, resumés, and portfolios of the applicants' work. The directors reviewed applications and scheduled interviews. Applicants were asked to explain their interest in the project to reveal each person's motivation to contribute to a children's book about wildlife conservation. Most of the selected team members had strong personal commitments to conservation, animal welfare or education. It is important to first empathize, understand and desire to learn about wildlife conservation. This deep personal connection to project goals influenced the team's commitment to completing a high-quality final product.

It was important to be inclusive and incorporate different perspectives when interviewing team members. We found it valuable to incorporate their perspectives when developing the characters and narratives to better connect with a diverse audience. *Conservation Tales* works to depict women, individuals with disabilities, cultural diversity and underrepresented groups as the scientists and children who learn about science. Promoting inclusivity with team members can bring together unlikely allies and support transformative change (Opportunity Agenda, 2017).

Interviews also revealed areas of overlapping expertise. Co-authors on *Tigers* and *Orangutans* were

science majors who had some art experience. Their contributions extended beyond writing stories. Two graphic designers who worked on eight different books also contributed photography for the project. The illustrator for *Elephants* and *Tigers* used her minor in screen writing to help with proofreading and editing of four different books. Project directors should consider team members with multiple skills as a way to ensure quality content. This cross-skill connection also improves the team's communication. Collaborations that allow individuals to work across disciplines lead to innovative outcomes with an improved understanding of the issues being discussed (Salmons, 2019).

Individuals selected for the project were asked to sign a formal agreement giving "non-exclusive rights" to the project for materials they contributed. Team members in the first year were paid a stipend. Later participants earned course credits for their work instead of receiving a stipend. The agreement reflected these policies. The contract gave the project permission to use photos, illustrations, graphic design (logos and visual identity), and text for promotional and online products as well as books. The students retain full ownership of their creative products, giving artists rights to sell original illustrations and photographs. The agreement stipulated the number of books received by each team member and a policy to purchase copies at cost. Any project creating a similar collaborative team should consider the terms of "employment" for all team members. If possible, legal council should be consulted for such an agreement.

Roles of Team Members

The development of teams for the *Conservation Tales* project taught us that the team's success depends on clear definitions of the roles of each member. The current framework includes a set of job descriptions and project expectations. The directors discussed the roles with an experienced graphic designer who served as a "project manager." Their experience on other books helped them understand potential pitfalls in the production process. We recommend that a graphic designer perform a similar role in other collaborations. The designer is likely the last person to handle the assets created by writers, illustrators and photographers before submitting the manuscript for printing. This important role makes it sensible to include the designer in setting a schedule of deadlines.

The designer and directors set a final deadline and worked backwards to identify tentative deadlines for



Table 1. Team Role Descriptions

Role	Key Activities
Author/Director	Outline story plot; facilitate contact with experts in research process; guide storyboards to reflect project goals; contribute to story text; oversee editing process; budget management
Art Director	Plan purchase of art supplies; supervise illustration work; facilitate critiques of drawings, photographs; review layouts and design features; assist in editing
Graphic Designer	Manage development of text, images; assist in storyboarding; review draft illustrations for consistency; plan and execute layouts; produce final files for printer
Co-Author	Develop character profiles; storyboarding; research content; assess readability for target audience; assist in dialog writing and editing; proofreading
Character Illustrator	Research content; design characters; storyboarding; rough sketch, blackline art, full color illustrations; revision of artwork in editing process
Background Illustrator	Research content; design scenery and backgrounds; storyboarding; rough sketch, blackline art, full color illustrations; revision of artwork in editing process
Photographer	Research content; photography for content; Editing photographs; Identify potential third-party photos; document copyright/license/permissions; revise images in editing process.

finished illustrations, drafts of text, blackline versions of artwork, storyboards, cover art, and content research. As the leadership team created the schedule, roles of each team member became more apparent. Table 1 contains a summary of the key activities performed under each role to complete the books.

The project's goals determined the skills needed to accomplish them and guided the selection of team members. *Conservation Tales* teams include three illustrators, with one dedicated to drawing the animals featured in the story to ensure that animals are drawn with scientific accuracy. The other illustrators focus on human characters and settings for the story based on the research the team conducted. This model fits well for our project because most of the illustrators are animation students who learn to collaborate and work in a similar manner. For publication projects with a different audience or a different type of artist design, a single illustrator may be a better choice. Some projects may have no need for a photographer, while others might need translators to write multiple versions of a manuscript in different languages. Directors need to clearly identify the project's goals and the strategies needed to accomplish those goals before creating a plan for building a team.

Directors also need to consider where to find team

members. Projects to create educational books are likely to be initiated by educators or content experts such as scientists, community health leaders, or historians. Finding artists and designers may begin with an Internet search for freelance illustrators and graphics experts who advertise their services online. Projects that cannot afford to pay professionals may find that universities are a great resource. Students in visual communication (graphic design) and the visual arts are often expected to connect with community partners through internships, course projects, and collaborative assignments. These students might be able to participate for course credit or a small stipend, and will likely be eager to gain professional experience and use the books in portfolios to help with job searches. If the project can provide art supplies, this is an appealing incentive to entice student artists.

The co-authors we selected were also students in disciplines that matched the goals of the project – elementary education, biology and environmental management students. Project leaders can contact university instructors and department chairs to see if they can offer course credits for an internship.

Students in the disciplines we have described are likely to have the skills needed by a publishing project and the desire to gain valuable experience. Since students are expected to meet performance expectations at a high level, we suggest working primarily with upperclassmen – juniors and seniors who have enough coursework to have advanced skills in art, design, and technology such as publication software. If the students can use their work with a publication as course assignments or credit hours in their major programs, the project planners and students all benefit from the relationship.

Team leaders need to beware of creating too large a team. A team with too many people, especially authors and illustrators, will make project management more difficult than with a small team. We recommend that planners streamline the process and select contributors who have skills the team truly needs.

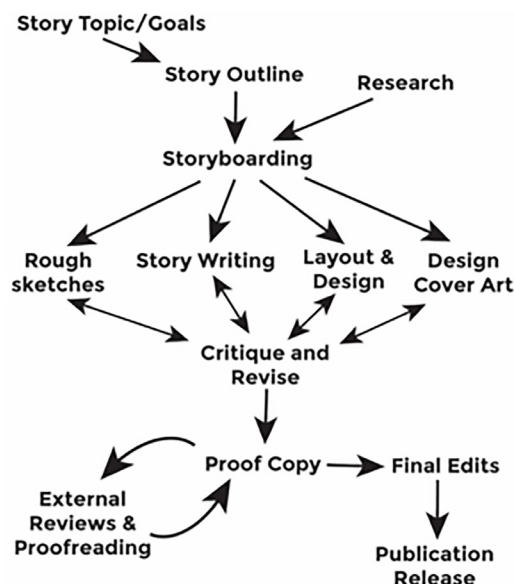
Work Flow for Book Development

The work on the publication begins as team mem



bers are being selected. The process we suggest is based on a review of the successes and challenges we faced in the early iterations of the *Conservation Tales* project. Figure 1 offers a general workflow that emerged from our efforts.

Figure 1. Workflow for Book Development



Team leaders usually begin with an initial concept or topic for the book. The authors can then construct a story outline – a general direction that identifies the types of research needed, characters to be developed, and a general plot for the story. Our team researched the content by shadowing and interviewing scientists, reading articles and websites about the featured species, and learning about diversity issues relevant to the accurate depiction of children in the stories.

Research was a key focus in the first weeks of the project, and continued throughout the development process. Team members observed and interviewed the consulting scientists depicted in the story to ensure the authenticity of the books. The team communicated with the consultants via email to gather additional information. Drafts of the story were shared with the consultants for a review of content accuracy. After returning to campus, the team used on-site sketches, photographs and interviews to create all of the elements of the books. The team's discussions expanded upon their initial ideas and helped to direct the story development.

The entire team used the story outline and research to create storyboards to assist in the design, layout and placement of photographs and illustrations. Storyboarding is the creation of a pictorial sketch of the story

that creates a more detailed roadmap for the team. Storyboards should be revisited regularly to update the plan with details and revised story elements. The storyboard guides authors, illustrators, designers and photographers in their respective roles.

One of the first important tasks for illustrators and designers was the creation of a cover for the book. Our experience suggests that developing the cover creates a sense of direction and a visual theme that drives the rest of the design process. Illustrators used this step to create the first character illustrations and animals as the graphic designer selected fonts and color schemes to establish a theme that was carried throughout the book.

Illustrators created rough sketches of characters, animals, and scenery that they eventually developed as black-line drawings and full color drawings and paintings through a continual review and critique process by the entire team. At the same time, authors wrote more detailed story elements, incorporating the information collected during research, and creating a story that conveys the concepts that address the book's goals. The writers worked closely with illustrators and photographers in the storyboarding process to ensure the story and images complemented each other.

Graphic designers created initial layout examples to test placement of text with initial drawings and photographs. The designers combine the illustrations, photographs and text based on the team's planning for the story. The graphic designers were responsible for ensuring that the book files were ready for print production.

Reiterative cycles of review, critique and revision eventually led teams to a full draft of the book. The team then sent the draft to an on-demand print service to produce a proof copy - a first rough copy that allowed the team to examine layout design, colors, illustrations and photographs. At the same time, the team shared digital drafts with external experts for review. This external review was extremely important to the quality of the final products. The team shared the drafts with the content consultants who served as the models for the scientists in the stories. We also asked practicing teachers to review books and offer suggestions to ensure that the stories were useful for children and teachers. The addition of elements like captions and author notes was guided by early reviews by educators. Team members and external experts also contributed to a detailed proofreading and editing process for the text of the story.



After a thorough review of the proofs, revisions were made to the books. The final step was to submit final versions of the book for printing, followed by the official “release” for public purchase. This process varies depending on the print service used, but the most common processes include online forms to enter titles, authors and illustrators, ISBN numbers, pricing information, and other technical details for the book. The team then uploads separate PDF versions of the cover and book interior. Most print shops then complete a review to ensure that files meet their technical specifications. Once the book is approved by both the printer and the “authors,” the book is almost immediately available for purchase through an online store.

The next section describes some key decisions team leaders need to consider in planning a publishing project. Some of the decisions focus on business plans and legal issues. Others are about artistic style or are more technical in nature. All of these issues are important if the team hopes to create a marketable publication.

Key Decisions for Publication Projects

The workflow (Figure 1) gives a simplified description of the process of a book project. However, there are important decisions the team leaders need to consider before and during the process. As professionals in education and the arts, the decisions were new to our team, so this section is offered to help other authors and self-publishers prepare for the challenges we encountered. Our team chose solutions based on our goals for the project and the resources available to us. Other collaborations may need to choose a different path, but many of the questions that planners will face are the same.

Business Plan

When the team has identified the goal and topic for the project, the next step is to think about a business plan. Even if the project is a not-for-profit endeavor, we recommend that the project establish certain parameters for the project. The choices described here will influence the process and decisions to be made later in the project.

One of the first provisos we offer is that self-publishing is NOT a path to enormous wealth. A self-published book may earn a modest income, but do not expect to get rich with this project. Project goals should address a specific need in schools or in the target communities. Even so, the choices described here can help reduce legal liabilities and unexpected expenses that

could prevent a publication project from reaching its goal.

Print vs. digital – An early decision to make is whether the book will be sold as a print version, as an electronic book, or both. Today’s technology makes it very easy to create e-books that can be accessed through applications for computers, tablets and smart phones. If the books will be digital, the layout and design need to take into consideration the size of the screen and how a reader advances through the pages.

If a print book is the goal, the team will select from a range of book sizes, cover types, color or black-and-white options, and paper quality. Final decisions about these matters are based on the audience, costs of the options and project goals. Hard cover books are ideal for libraries, especially for children, but the cost of binding is about three times higher than a paper back cover. Color printing is better for young children, but slightly more expensive than black-and-white printing. Any on-demand or self-publishing service will allow planners to explore options and adjust settings as the project moves forward.

Copyright ownership – Published materials are the intellectual property of the author and publisher, so protecting the rights to a book is an important initial step. There are many copyright options available to a self-published author. One of the early decisions should be about who will hold the copyrights to the book.

First, planners should ensure that no other author owns the copyrights to the title you are considering. It is important to do some homework, and devote time to a thorough search for books of the same title. The *Conservation Tales* project considered a few titles that were eliminated because other publishers had copyright or trademark protections that made those titles legally impossible.

Project leaders who wish to retain copyrights need to find out how to file or establish copyrights in the country in which the book will be published since laws and required forms vary by country. In some places, forms need to be filed and approvals obtained before the publication is copyrighted. In others, a printed work is copyrighted simply by transmitting the work via mail or electronic communication, but a registered copyright may offer more protections for authors.

Another option is to allow the company that prints, binds and distributes the book to hold the copyright. On-demand and self-publishing services usually offer this option early in the planning stages. The service is most often free or very inexpensive, but the revenue



authors earn will be lower. In this option, the print service assumes the responsibility for marketing the book, but they also retain a larger percentage of the profits and can transfer the copyright without the author's permission.

One way to help establish copyrights is to register an International Standard Book Number (ISBN). This is a unique number registered with government agencies, usually through companies that help you submit the formal registration for a fee. The cost of an individual ISBN number is about \$20 USD. If a project plans to produce multiple books, a more cost-effective option is to create an "imprint" of your own and purchase a "block" of ten ISBN numbers at a reduced cost. An imprint is the name of a publishing company or service to which the copyright is assigned. For *Conservation Tales*, the author had already established his own unincorporated publishing company under a name selected after the same type of search as for the title. This imprint name is used as the "publisher" for the *Conservation Tales* series, and has since incorporated.

Self-publishing and on-demand services offer authors the option to assign one of their registered ISBN numbers to the book they wish to publish. This is a cheaper option than registering one's own ISBN number, but it usually means the authors have assigned copyright ownership to the publishing service. As stated previously, this means a smaller percentage of revenue forwarded to your project. The print service may also offer options for the creation of a barcode on the cover of the book. The print shop may add this, or the author/publisher can insert their own barcodes. Barcodes can be created when the ISBN is registered for a small additional fee. The decisions about how to handle copyright, ISBN registration and barcodes needs to be made with consideration to cost, convenience, and the relative importance of maintaining control of copyrights.

Authorship – Planners need to establish a policy for listing author and co-authors. This may seem like a simple issue, but the order of authors is sometimes important to the parties involved. Putting a policy on paper for how authors are listed helps to avoid personal or legal disputes after publication. Similarly, illustrators should be listed on the cover and on the title page of a book, so a clear policy for this should be included in the plan. If the project team includes other contributors, we strongly recommend each member of the team should be acknowledged, both on the title page of the book and in a later section. *Conservation Tales* books include a

"Meet the Team" page to acknowledge all contributors. While this policy is not a legal requirement for publishing, it is most ethical, and helps to create a strong sense of teamwork and ownership that enhances the quality of the product.

Distribution plan – Project leaders should also develop a plan for how they will distribute the books. Most on-demand and self-publication services offer online sales. However, for projects that retain copyrights, marketing of the books may fall on the author or publisher. The print service markets the books if they hold the copyrights, but the amount royalties paid to authors is reduced. Authors should anticipate the need to advertise, promote and distribute the books on their own.

The developer of a book can usually purchase copies of the title at an "author price," usually the cost of printing and binding plus a small fee for the printer. Shipping and taxes are not included. This offers a way for project planners to purchase copies and sell them directly to customers. Purchasing copies requires an expenditure and a financial risk if the team cannot sell enough books to realize a profit. *Conservation Tales* keeps a minimal number of copies "in stock," but keeps enough to sell books at public outreach events, conferences, and festivals. We also have the ability to provide small orders directly to schools and teachers. All other sales take place online either through the on-demand print service, or via a project website with an electronic store. This reduces the effort by our team to handle sales and shipping.

When determining the price of a book, planners may want to sell copies at a wholesale price for book stores. Booksellers usually double the wholesale price when they sell to retail customers. The retail price should be set high enough to still earn a small profit when selling to retailers at half price. On-demand print services will set the price according to the authors' instructions, and forward the royalties to the author from online sales. Planners need to consider taxes that will be charged for books. In some African countries, tax rates for books may be as high as 14%. Tax rates may influence the willingness of customers to buy the books. If the books will be sold in more than one country, this decision might be more complicated. For some projects, this may not be an issue if they plan to use funds from grants or government agencies to purchase copies and distribute to schools for free.



Selecting a Printing Service

All of the decisions described in the Business Plan section should be made early in any project, in part because the answers will shape the choice of a printer/publisher for the book. There are several different services available. Companies that offer these services in Africa include Printivo, 48hrbooks.com and New Voices Publishing Services. Some services are only available in specific regions, like Digitalprintondemand in South Africa. Kindle Direct Publishing, the printer for *Conservation Tales*, may be best suited for digital books produced in Africa because they currently do not have a print facility in Africa and do not offer affordable shipping to the continent.

Planners should explore these companies and others to find a vendor that provides the right combination of cost, profitability, convenience, technical support and access to customers for the needs of the project. Since one goal of self-publishing is to put more control in the hands of local individuals, planners may wish to look for other local companies that can offer services to suit those needs better than the large corporate printing services.

Project Management

Project management should be flexible, holistic and team-based. An agile approach to project management, like the “scrum” framework (Sliger, 2011), allows for short bursts of activity as team members continually shape the direction of the project. Team leaders begin by articulating goals and outcomes, setting expectations, and providing a means for project evaluation. They introduce teams to important dates and when interactions with scientists will occur. The processes that team leaders need to direct are described in the following sections.

Artistic style – One of the early discussions with team members should address the artistic vision of the project. Team leaders will likely have an idea what type of appearance and artwork they want to include in the book. Choices about artistic style depend on the target audience and the goals of the project, but the aesthetic vision of the team members will also impact the final results. Questions to address should include the following:

- Will illustrations be realistic or stylized?
- Will illustrations reflect a specific art genre?
- Will text be in blocks or arranged to flow with the artwork?

- What color palettes will be used and what kind of medium will be used to create the illustrations?

All these choices are important, and ensuring that the team is aware of the themes to guide their work helps to avoid conflicts of style later in the process.

Target audience – Planners should determine who the readers will be. Is the book intended for young children just learning to read? Does the project target older children in intermediate grades, secondary students, or even adult learners in the community? This is an extremely important decision because the writing style will vary dramatically for different readers. For authors who are accustomed to writing scholarly research papers, this adjustment is difficult. The sentence structure, vocabulary, and length of text on each page need to be appropriate for the target audience. Small issues, such as changing passive sentences to active, affect the readability of the text. *Conservation Tales* uses tools in Microsoft Word that provide readability statistics when it checks spelling and grammar. There are many other ways to assess reading level. If the development team does not include age-specific educators, we recommend consulting with a reading specialist for help in assessing and adjusting the reading level of the text to suit the target audience.

Book developers also have opportunities to publish books in different languages. This issue echoes questions we posed in the opening sections of the books about making books culturally relevant. If the goal of a publishing project is to create educational materials for a specific country or region, the world of self-publication gives authors expanded opportunities to write in the language of their choice. Books that teach reading or history in Akan, Kiswahili, Yoruba, Iszulu or any of the many tribal languages are much easier to produce through self-publishing than through large international publishing houses. Accelere!1 (Chemionics, 2020) is an example of a project that produces books for school children in three indigenous languages in the Democratic Republic of Congo. If publishing in an indigenous language is one of the goals of the project, it is important to make sure at least one team member is fluent in both the written and spoken language. The graphic designer should also consult with readers of that language when selecting the best font for the book (Nottingham, 1969).

External reviewers and editors – The need for external review process may seem like a decision that can wait until late in the project. However, we encourage planners to think about this step early in the process



Team leaders should not wait until the story text is finished to begin your search for external reviewers. They should allow plenty of time to communicate with reviewers and editors because these external partners may not be bound to project deadlines. *Conservation Tales* sends drafts to external reviews to assess content accuracy, authentic depiction of diversity issues, and the fit for our target audience. We also ask for help from others in reviewing the cultural context of the book's story and illustrations. It is not uncommon for reviewer feedback to be the last bit of information we receive for the final revisions, so we try to start the process as early as possible to avoid delays in meeting deadlines. Requests to reviewers should include target dates that leave the time for the team to finish the book before the final deadline.

Technical Considerations

Once the team begins work on a book, all members of the team need to be mindful of technical requirements for producing high quality printed material. Some of the requirements are dictated by the printing service selected to produce the books. These specifications are based on either the process of printing and binding a book or on the business plan choices described earlier.

Printing specifications – When a printing service is selected, the company provides a set of specifications for file formats, color standards, and image quality. Most companies will offer templates to help plan page layouts and margins. One of the reasons to include a graphic designer on the team is to ensure that files meet these specifications.

From the beginning of the project, team members need to have a clear understanding of the images needed for printing. Printers require a minimum of 300 dots per inch (dpi) for all images and finished pages. Some printers will require even higher resolutions for black-line graphs and diagrams. Illustrators on the team need to begin their sketches with this standard in mind. They should plan to create drawings and paintings that are larger than the finished images that will appear in the book. All images will need to be transformed into a digital format, even if created using traditional art media like paints, pastels or colored pencils. If an original illustration is too small, and the designer needs to enlarge it, the result is a grainy image that does not reproduce well in print.

Color palettes used for illustrations also need to meet certain specifications. If the book will be in print

format, all colors need to be saved in CMYK format. This format is based on the cyan, magenta, yellow and black inks used in the printing process. If the book will be digital, RGB colors will be needed. These work with the red, green and blue pixels that create color images on a computer monitor. If the correct color palette is not used, the colors on the final product may not match what the artists and designers created.

Printers also set requirements for file types. Most of them require PDF files for the cover and the interior. Others may ask for images as TIFF or EPS files. Some companies ask for single page layouts, while others ask for a side-by-side book page layout.

Templates provided by the printer will show margins, gutters, trim, and bleed lines. All text needs to fall within the margins. The gutter describes the area where pages meet, creating a wider margin on the “inner” edge of the page. Illustrators and designers need to keep in mind that content falling in the gutter may not be visible in the bound book. Trim and bleed lines are features defined by the process of printing, trimming and binding the books. The trim lines show where the pages are expected to be cut. If illustrations and backgrounds will go all the way to the edge, a “bleed” line will be seen outside the trim lines. Images meant to be printed all the way to the edge of the page should extend beyond the trim lines to the bleed lines. Once the book is printed, pages are cut to size, and a small part of the image will be trimmed off in the process. Illustrators and designers need to be aware of this to avoid putting critical information at the edge of the page. This process makes it very important to work with a graphic designer who has been trained to work with these parameters.

Third-party materials – Another requirement is a policy on the use of third-party materials. The most likely example of a third-party resource is an image such as a photograph, illustration, clipart design, a graph or a map. In every case, images from third-parties – any image not created by the team – requires the publisher to get express permission and to properly attribute the image to the source. Incorporating copyrighted images usually involves paying the owner for permission. In some cases, the fee is nominal. However, some sources, especially photographs and images from corporations like movie studios, may charge fees that can be hundreds of dollars (USD).

Fortunately, there are other options. Websites that offer public domain or “Creative Commons” materials are excellent resources for authors and designers.



There are several sources of public domain and Creative Commons images. Links to some of these sites have been provided in the “Resources” list at the end of this article. Public domain images, often from government agencies, are free for use. Legal guidelines do not require attribution of the author (listing the owner and year), but ethical practice suggests including a small caption showing the source on or near the image. Creative Commons status offers a variety of licensing options, usually labeled as “CC.2.0” or some other numbered license. Some materials are free for use with attribution, including a link to the original source. Others prohibit use for commercial products like books. Owners may also stipulate a small fee to use an image. Project planners need to pay close attention the terms and limitations of each type of Creative Commons license. As educators, it is important to practice ethical use of intellectual process, and it is the “publisher’s” legal responsibility to abide by the terms of the licenses.

Technical process for team – Other technical considerations should address how the development team works on the book. This involves identifying the tools the team will use to produce the text and images in the book. Illustrators may wish to paint or draw using traditional media. If the illustrators are paid a stipend, they will often be expected to purchase their own materials. *Conservation Tales* used project funds to provide these materials as one of the benefits of being on the team. The team needs to agree on the software for producing text, images and layouts, including the format of the files they save. The industry standard in publishing is the Adobe suite of software, *Creative Cloud*. This can be expensive, but many graphic designers and artists already use it. The most essential applications in this suite are Photoshop, Illustrator and InDesign. Photoshop is one of the leading tools for digital artists, and can help photographers edit images. Illustrator and InDesign are layout and publishing programs used in the graphic design field.

There are other less expensive programs that can be used to carry out the same tasks, so the team should pick tools that are accessible to members. It is important to ensure that the software can export or save files in the formats required by printers, so the team should refer to the technical specifications provided by the print service selected for the final product.

The team also needs to select a method for sharing files. Each team member will create files for their respective contribution to the book. The graphic designer will eventually need to access these files to place them in

page layouts. Cloud storage is an easy option, but it is important to make sure the project has enough storage space for files. Images and page layouts will use large amounts of storage space. If the team runs out of storage space, backing up files becomes an issue. The choice of a cloud service should be guided by local availability and ease of access for all team members.

Conservation Tales required team members to save all files in Box, with shared folders for each book. Managing the many files created by the team was a challenge, so the team created a guide for naming files and locations for storing them. The graphic designers should be involved in guiding the decisions about file names because the designer will be the last person who needs to find the files.

In an age of technology, project teams might also collaborate from different geographic locations. If the specialists you need live far away, videoconferencing tools like WhatsApp, Skype, Zoom, and other videoconference applications permit collaborations that can be productive. The *Conservation Tales* team was required to complete two books in the spring of 2020 in a virtual environment when the COVID-19 pandemic forced the university to close campus. The *Conservation Tales* team demonstrated that completing a publishing project from a distance is possible, even when team members use laptops, desktop computers, tablets and even smart phones to connect. For similar needs, a project team should select a common videoconferencing tool that allows team members to “share screens” so they can view samples of artwork and layouts as they review and critique the work.

Implications for Potential Authors

The process of creating a book as we have described appears to be very complicated, but with the right membership on the team to help with the different tasks, self-publishing is within reach. As Nottingham (1969) wrote, “There is no technological reason why” educational books for African learners cannot be written, edited, designed and published in Africa.

Odendaal (2008) described the importance of the publisher: “The academic publisher is a gatekeeper of knowledge and thus controls what appears in print” (p. 52). Self-publishing opportunities afforded by current technology and business models have made it easier for indigenous authors to become the “gatekeepers” as they shape the knowledge that appears in print to meet local and regional educational needs. Educators who hope to help decolonialize schools and social



institutions in Africa – or any other part of the world – have the tools and support systems at their fingertips needed to create materials that can help achieve their goals. Authors no longer need to rely on the vision of large publishing companies who are driven by large profit goals and may not share the author's objectives. The availability of these tools makes it easier than ever for local experts to develop books in indigenous languages, with illustrations and photos that are relevant to indigenous learners, and reflect authentic historical and cultural contexts. A leading publishing professional in South Africa, Brian Wafawarowa, describes the need to facilitate such participation in the publishing industry:

"... an ideal publishing sector is one in which people of all races and cultural persuasion have the space to participate in the various aspects of the book sector, a sector where the knowledge pool is enriched by the diversity of the literature that is available and where the population indulges in reading beyond reading for instruction purposes in institutions of learning"
(Wafawarowa, 2004)

The primary barrier to producing locally relevant materials, then, may be a perception by interested individuals that publishing is too difficult or too complex. The leadership team of the *Conservation Tales* project faced these same concerns. We discovered that we needed specialists with specialized skills and the willingness to collaborate. We also found that support and interested partners were not hard to find, especially if we were willing to work with university students. Their technical skills and openness to try new ideas led to a level of quality that would have been impossible without these key team members. More importantly, their creativity drove the rapid growth of our project and the addition of valuable ideas for developing marketing materials, educational activities, and key features of our books that appeal to our target audience.

Conclusion

As educators consider the need to improve curriculum and educational materials for children in Africa, or any other country for that matter, the barriers presented by the control of publishing companies on the available resources is growing less important. We present the example of the *Conservation Tales* series as a model for the development of locally-produced, culturally relevant educational materials.

The time is right for independent authors, educators, illustrators and others to use their expertise to make the materials they know are needed for schools and communities. We present this goal not only as an educational strategy, but also as a tool for decolonialization. Self-publishing authors can take a lead role in transforming schools and society by becoming creators, not just consumers, of the information that presents images intended to shape young and malleable minds.

It is clear that building a collaborative team of individual who bring specific skills are helpful to a successful publishing project: authors, illustrators, graphic designers, editors, and educators. Such a team can then use the current on-demand, digital and self-publishing resources to produce quality and relevant educational materials available with very little overhead expense.

Our hope is that the framework for a collaborative team described above can serve as a model that others can adopt, adapt and remold to suit their needs. Perhaps more importantly, we hope to inspire the innovation and entrepreneurial spirit that can help our fellow educators become "knowledge creators" (Zegeye & Vambe, 2006) who produce high-quality, cultural relevant educational resources for schools. As we explained earlier, the doors truly are open if a handful of individuals with a vision for indigenous books are willing to step out of the traditional box to take advantage of the opportunities at hand.

Resources for Self-Publishing

ISBN Registration Services

[Bowker ISBN-US](#)
[ISBN Services](#)

Companies Offering On-Demand Printing in Africa

[Printivo](#)
[48hrbooks.com](#)
[Digitalprintondemand](#)
[New Voices Publishing Services](#)
[Kindle Direct Publishing](#)

Creative Commons & Public Domain Image Sources

[Flickr](#)
[Unsplash](#)
[Pexels](#)
[Pixabay](#)
[Creative Commons Search](#)
[Wikimedia Commons](#)



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Authors

¹ **Tom J. McConnell** (tjmcconnell@bsu.edu) is a Professor in the Department of Biology at Ball State University, Muncie, IN, USA.

² **Barbara Giorgio-Booher** (bggiorgio@bsu.edu) is a Teaching Professor in the School of Art at Ball State University, Muncie, IN, USA.

