New-Teacher Induction 2.0

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Abstract

The purpose of this program evaluation study was to design, implement, and evaluate the effectiveness of incorporating an online learning community as part of a comprehensive new-teacher induction program. The researcher, who serves as the middle school principal and new induction coordinator for the school district, used a mixed-method approach to collect and analyze the results of the study. First, the researcher created an online learning community model based on the results of a comprehensive review of literature and a previous year's pilot study. Next, the researcher implemented an online learning community in the form of a wiki. The study evaluated the implementation of the model through the perspectives of all the participants: new teachers and contributors (veteran teachers, principals, central office administrators, and professors from schools of education). The data (pre- and postsurveys, questionnaires, and focus-group sessions) revealed positive results for the new-induction online learning community format. (Keywords: online learning community, new-teacher induction, school-university partnership, Web 2.0, wiki)

Todays public education teaching force is facing multiple challenges as we enter the post-No-Child-Left-Behind era. Two problems facing today’s teaching force are teacher attrition and digital integration and literacy skills. However, the way that we prepare new inservice teachers to enter the field may serve as a common solution to both problems.

Background

Schools are facing high levels of turnover through attrition. In particular, new-teacher attrition rates are as high as 50% in some areas despite the growing need for more teachers in the field (Ingersoll, 2003). With such losses, the inevitable occurs: low levels of student achievement (Darling-Hammond 2003).

Lack of support structures and poor working conditions are cited as several of the primary reasons for new teacher attrition (Ingersoll, 2003; Wiebe & Bardin, 2009). A profession facing such a loss requires interventions to reduce the number of teachers exiting the field.

Teacher induction programs have been shown to be effective strategies in reducing new teacher attrition (Ingersoll, 2001; Strong & Villar, 2007; Wong, 2005). Comprehensive programs designed around the new teacher to provide a foundation in professional development and support are necessary to prepare new teachers entering the field (Kaufman, S. M. Johnson, Kardos, Liu, & Peske, 2002; Wong & Asquith, 2002). Furthermore, professional development provided through the means of a teacher learning community affords teachers’ greater understanding and acceptance (Clark, 2001; Darling-Hammond & McLaughlin, 1995; Darling-Hammond & Richardson, 2009; Ullman, 2009).

Professional learning communities where teachers form groups to collaborate on new teaching concepts and strategies promote positive learning environments. The learning community provides a natural support system to explore new ideas, share common concerns, and promote collegiality (Darling-Hammond & Richardson, 2009). The very nature of a teacher learning community lends itself to a new-teacher induction program. However, in the 21st century, learning communities can span the digital world easier than ever, creating new possibilities.

Today’s rapid advances in new information and communication technologies (ICTs) have opened new possibilities for educators to work collaboratively in an online learning community. The Internet has moved from a static knowledge base reserved for those with Web-based programming skills to an interactive experience through the use of Web 2.0 technology for the everyday user (Solomon & Schrum, 2007; Tapscott & Williams, 2007). Tools such as blogs, widgets, wikis, and mash-ups are common in this personal Web experience. The “real world” is merging with the “digital world” to form one interactive experience where people work, network, communicate, socialize, and play. As a result, globalization, where physical boundaries are no longer obstacles to interact with people, is becoming commonplace (Friedman, 2005). By harnessing easily acquired mass communication technologies, schools can grow and expand professional development opportunities, enhance learning networks, and ultimately meet the needs of today’s student.

Despite that there is a growing amount of literature on examples of Web 2.0 technologies used in educational settings, the field lacks empirical research on the use of Web 2.0 in schools (Fahser-Herro & Steinkuehler, 2009–2010). At this point, the education field is lacking in research on the impact of technology on the profession, even though today’s newest teachers entering the field are considered the first people who have grown up with everyday access to technology (Lei, 2009).

As an added argument, “K–12 school districts have been slow to react to the
extensive gap between teaching staff and their technologically savvy students” (Fahser-Herrro & Steinkuehler, 2009–2010, p. 57). For schools to avoid a “digital disconnect” between their teachers and students, opportunities for modeling and utilizing these tools are necessary (Greenhow, Robelia, & Hughes, 2009, p. 247).

This researcher has developed a framework for new-teacher induction as a result of the confluence of schools needing advanced and comprehensive new-teacher induction programs while at the same time being left behind in the digital world. The framework not only delivers the necessary support structures for today’s new inservice teacher but also models the appropriate use of powerful ICTs.

**Essential Components of the Online Learning Community Model**

After an extensive review of literature and application of a pilot study, this researcher was able to develop a comprehensive new-teacher induction program. The researcher founded the core components based on an extensive review of literature in the area of new inservice teachers entering the field and the importance of the integration of Web 2.0 technologies in today’s schools.

**Comprehensive Program**

First, the model calls for a comprehensive new-teacher induction program that extends through the school year, resisting the quick teacher orientation approach found in many schools (Fulton, Yoon, & Lee, 2005). Additionally, the model requires more than the assignment of a mentor, which is not enough to support the demands placed upon teachers, who often feel “lost at sea” (Kauffman, Johnson, Kardos, Liu, and Peske, 2002). A mentoring alone approach to induction is more of a survival tactic rather than a professional growth and learning approach (Wong, 2005). To be successful, today’s new teacher entering the field requires an extensive induction program (Ingersoll & Kralk, 2004). The design facilitates the importance of being a part of a professional learning community. Fulton, Yoon, and Lee (2005) advocate for induction programs that “support entry into a learning community” and utilize “external networks supported by online technologies” (p. 1). The design moves away from traditional standalone, one-to-one mentoring programs and encourages collaboration, creating “an integrated professional culture with frequent exchange of information and ideas across experience levels” (p. 608). Therefore, the framework creates the opportunity for an ongoing, comprehensive induction program.

**Professional Development in a Collaborative Environment**

The level of anxiety, self-doubt, and isolation among new teachers entering the field is prevalent in the literature (Brock & Grady, 1998; Johnson & Birkeland, 2003; Wong, 2005; Wong & Asquith, 2002). By creating an opportunity where new teachers can share common experiences, seek support from experienced educators, and focus on professional development, school districts have the opportunity to promote teacher self-efficacy (Hur & Brush, 2009).

The learning community approach is associated with higher levels of teacher self-efficacy and student achievement (Banilower, 2002; Darling-Hammond & Richardson, 2009). By participating in a learning community, the participants have an opportunity to collectively inquire and make sense of their experience through “collective inquiry” (DuFour, 2003; DuFour & DuFour, 2007). Thus, the model counters the feeling of isolation that new teachers often experience.

**Variety of Support Personnel**

The New-Teacher Induction 2.0 Framework calls on a variety of personnel to take part and support the teachers as active participants of the online learning community. The conceptual framework’s design calls for support from a variety of sources, both inside and outside the school district. Contributors in the conceptual framework consist of veteran teachers, district administrators, building principals, and university professors from schools of education. Freiberg (2002) reinforces the necessity of creating opportunities for new teachers to have access to experienced educators, stating, “Without access to the pedagogical skills of veteran teachers, many new teachers are unprepared to face the challenges of the classroom” (p. 56).

Administrators, through this design, can create avenues for dialogue and interaction among new teachers and veteran educators. The administrator’s role in creating these “collegial relationships” is critical to creating a system aligned with the best practices from the research and literature (Cheng & Pang, 1997).

The conceptual framework also calls on experienced educators located beyond the confines of the school district, as recommended in the literature. “School–university partnerships are a fundamental link to strengthen teacher education reform” (Burton & Greher, 2007, p. 13). Quality school–university partnerships have resulted in reciprocal benefits; therefore, improvement in teacher preparation and development are seen at both levels (Epanchin & Colucci, 2002). In a study of school–university partnerships, Kelley (2004) describes the results of six school districts that partnered with the University of Colorado: “Through creative resource sharing and collaboration with the university, participating districts have developed a cadre of committed, effective teachers to meet current demand and continue to support and invest in the induction program for new hires” (p. 447).

**Promotion of Web 2.0 Technologies**

The final and most unique component of the framework is the promotion and modeling of Web 2.0 technologies. Leu, Kinzer, Cioiro, and Cammack (2004) bring about real questions on whether or not new teachers are prepared to use new communications technologies in the classroom setting. For schools to avoid a “digital disconnect” between their teachers and students, opportunities for modeling and utilizing these tools are necessary (Greenhow, Robelia, & Hughes, 2009, p. 247). Most significantly, the conceptual framework helps model Web 2.0 usage for both the new teachers and
The discussion board experience helped me generate new ideas. 3.65 0.49
The online learning community wiki as a place to collaborate with new and experienced teachers, administrators and educators in the field. 3.84 0.37
The wiki as a venue to interact with other new teachers with similar challenges, goals, and ideas. 3.90 0.31
How would you rate the wiki experience overall? 3.40 0.60

<table>
<thead>
<tr>
<th>Criterion</th>
<th>M</th>
<th>SD</th>
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<tbody>
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</tbody>
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Note: N = 20. Rating scale 1 to 4; 1 = lowest rating, 4 = highest rating.

In addition to being grounded in the literature, the genesis of the online learning community concept was a result of a pilot study that the researcher conducted during the 2008–09 school year in the researcher’s school district with the 2008–09 new-teacher induction cohort. Through that year’s new-teacher induction program, the researcher explored the concept of incorporating an online experience on a pilot basis. The induction coordinator incorporated two themes into the online learning community: technology and differentiated instruction. Rich discussion and collaboration of ideas around the two themes developed in the discussion boards as a result.

In addition to researching the discussion board threads, the researcher gave an exploratory survey to this past year’s new-teacher induction group. The survey items were based on a 4-point Likert scale, where a rating of 1 was the lowest rating and 4 was the highest rating. The data revealed two essential pieces of information. First, as shown in Table 2, the participants viewed the online experience positively. On a 4-point scale, the strong means for each category with little variation revealed that the participants received the format well.

Second, the 2008–2009 pilot study guided the researcher in identifying the necessary subcomponents found within the new-teacher induction program that this study evaluated. The framework consists of three subcomponents: content, delivery of information, and collaboration.

Professional development content. First, the content within the new-teacher induction program was based on the pilot study results. By analyzing the pilot study’s wiki discussion board discussions, the researcher identified four professional development themes: technology, assessment and grading, differentiated instruction, and special education. In the discussions, the teachers indicated the need for more information and assistance with applying these areas in the classroom. Therefore, the content within this model consisted of those professional development themes. Two months were dedicated to each professional development theme using a hybrid approach. One or more of the contributors introduced each theme in a traditional meeting setting after school, and the following month’s meeting was held online via the online learning community. Throughout the two months, participants had opportunities to interact and contribute to the associated content.

Delivery. Second, the delivery of the content was an essential subcomponent within the model. Ultimately, the researcher chose a wiki as the online learning community common “virtual meeting place” due to the user-friendly nature of the technology (Graham & Ferriter, 2010; Sheehy, 2008). Within the wiki, the researcher utilized a differentiated approach to deliver the content to model various uses of Web 2.0 technologies. The wiki content was shared through embedded video, text, hyperlinks, netcasts, Google Docs, downloadable files, and asynchronous discussion.
boards. The pilot study results supported the use of the wiki and various tools within the wiki as a means of content delivery.

Method of communication. A final and essential subcomponent was a method of communication to support collaboration and self-reflection. As discussed above, the wiki had a default discussion board tab on each page that allowed participants an opportunity to hold discussion based on the page’s content. Ultimately, the wiki discussion board component served as the avenue for communication in the online learning community. The importance of collaboration and self-reflection is highlighted as an important prerequisite for teachers to develop self-efficacy (Darling-Hammond & Richardson, 2009). Additionally, the discussion board format was strongly received as a vehicle for self-reflection and collaboration tool in the pilot study results (see Table 2). Overall, the components and subcomponents served as the basis for the creation of the online learning community. The end result was the development of a conceptual framework of an online learning community network, as seen in Figure 1.

The new inservice teacher element consists of three reciprocal networks:

- **Personal learning network**: The teacher’s network where he or she accesses job-related information
- **Local colleagues (within the teacher’s building)**: The teacher’s colleagues, with whom he or she interacts on a regular basis
- **Students**: The teacher’s students with whom the teacher interacts on a regular basis

Next, the school district’s contributor element contains three reciprocal networks in which the main component has a direct interaction:

- **Personal learning network**: The school district contributor’s network where he or she accesses job-related information
- **Local colleagues (within the contributor’s building)**: The school district contributor’s colleagues with whom he or she interacts on a regular basis
- **District colleagues**: The school district contributor’s colleagues who work outside his or her building but within the school district

Finally, the university professor element contains three reciprocal networks in which the main component has a direct interaction:

- **Personal learning network**: The university professor’s network where he or she accesses job-related information
- **Local colleagues (within the university)**: The university professor’s colleagues with whom he or she interacts on a regular basis
- **Preservice teachers**: The university professor’s students with whom he or she interacts on a regular basis

The conceptual model provided the necessary framework to create the actual new-teacher induction online learning community. Thus, new inservice teachers, district personnel (administrators and veteran teachers), and university professors had a common “meeting place” to communicate, collaborate, share ideas, and provide support.

Methodology

Once the conceptual framework was developed and implemented, the next step was to evaluate the complete model for an entire school year with a cohort of new teachers entering the field. This article is part of a multifaceted research study looking at various aspects of incorporating an online learning community as part of a new-teacher induction program. For the purpose of this paper, this research focuses on the conceptual framework and receptiveness of the implementation of the framework in a new-teacher induction program.

Participants

Participants in the online learning community consisted of new teachers entering as full-time employees, administrators (building principals, superintendent, assistant superintendent, director of curriculum and instruction, special education director, and special education coordinator) and veteran teachers from the school district, and professors in schools of education from three area universities. The purpose for the varying positions was to incorporate a variety of expertise to form a strong support system for the new
inservice teachers. New-teacher induction programs supported by a variety of support personnel create strong networks of support for new teachers (Burton & Greher, 2007; Feiberg, 2002; Ingersoll 2003; Marable & Raimond, 2007; Wong, 2005). Figure 2 illustrates distribution of participants.

The program evaluation took place in a school district with approximately 4,500 students in southwestern Pennsylvania. Teachers newly employed for the 2009–2010 school year took part in the induction program and online learning community. Administrators, principals, veteran teachers, and university professors volunteered as contributors in a number of forms (presenters, discussion board monitors and participants, and sources of resources and support). The researcher chose contributors who could provide expertise according to the identified professional development topics (technology and Web 2.0 technology in the classroom, assessment and grading, differentiated instruction, special education).

**Materials**

A wiki from Wikispaces was used as the online learning community platform. The researcher utilized a Wikispace wiki for four principle reasons. First and foremost, a wiki is relatively easy to use and attractive to teachers to upload documents, video, podcasts, etc., on the page. Second, Wikispaces provides free wikis to K–12 educators in the field. Third, a Wikispaces account provides two gigabits of storage space with an option to pay for additional storage space. Finally, a Wikispaces wiki has the option of password protection; therefore, the online community can be limited to only those invited to maintain a private learning community environment. Table 3 provides an overview of the procedures followed to create the online learning community wiki.

Once the researcher chose the wiki as the social operating system for the online learning community, it was essential to establish the virtual meeting place. The researcher organized the online learning community opening page portal according to the identified
of information sharing conducive to varying learning styles were also found throughout the wiki.

The researcher embedded videos from other websites and self-created video tutorials on topics of discussion that might best serve visual learners. The video segments were short in duration, averaging about 3 minutes. He used the videos to help spark discussions on the discussion boards.

Audio learners had access to netcasts on the wiki. The netcasts were longer in length compared to the videos and could be downloaded to a portable player. In addition to video and audio, sharing tools were modeled and promoted throughout the wiki.

The researcher embedded documents such as PDF files and PowerPoint slides through the use of Google Docs. By using Google Docs, the members had the opportunity to download the files to their own computers, growing their own personal learning networks.

The final information component was the discussion board. The researcher added a discussion board to each wiki page to promote collaboration in the online learning community. The discussion board served as the common meeting place to ask questions, share information, seek support, and network.

One of the key features of the Wiki-space wiki is the notification tool. The tool automatically notifies the member of the wiki when new content is added to the wiki. The researcher promoted the use of the notification tool by creating and sharing a video tutorial demonstrating how to turn on the feature.

Another important feature is the reversion tool. The tool allows the organizer of the wiki to revert back to a previous version in case one of the members accidentally deletes or changes content on the wiki. The reversion tool takes the fear out of accidentally doing something wrong on the wiki because the organizer can always revert back to a previous version.

The initial start-up and organization of the online learning community takes a considerable amount of time for the

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**Table 3. Step-by-Step Overview of Online Learning Community Development Process**

<table>
<thead>
<tr>
<th>Step</th>
<th>Procedure</th>
</tr>
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</table>
| **Step 1** | Online learning community platform selection  
Choose social operating platform  
Wiki  
Navigate to www.wikispaces.com  
Identify wiki for purpose of K–12 education |
| **Step 2** | Account setup  
Register with service provider  
Invite members |
| **Step 3** | Portal organization  
Establish front page of wiki |
| **Step 4** | Wiki navigation design  
Navigation bar  
Tag cloud  
Search function |
| **Step 5** | Professional development thematic pages design  
Professional development focus areas  
Wiki template pages |
| **Step 6** | Content creation  
Links  
Embedded video  
Video tutorials  
Audio  
Text files  
Google Docs  
Discussion boards |
| **Step 7** | Notification feature setup  
Page edits  
Discussions |
| **Step 8** | Reversion  
Page history  
Revert to previous version |
mixed-methods approach for the evalu-
components of this study. By applying a
strategy in carrying out the evaluation
of surveys can allow the researcher
analysis of the study's results. The use
study to provide a more well-rounded
black and white, with little consider-
for types of interaction and
community. He coded and identified
effectiveness of the online learning
researcher also analyzed collective inquiry
and the group's response to find under-
standing through qualitative analysis of
the discussion boards.
The researcher asked new teachers
and contributors to take part in the dis-
ons a monthly basis for a one-
questions, and contributors answered
facilitated reflection, and net-
worked with teachers.
The discussion boards provided a
manner in which the teachers could take
part in a self- and collective reflection
process. The advances of online tech-
nologies have created effective ways for
teachers to perform such reflective prac-
tices (Holdan & Hansen, 2009).
To capture the experiences on the
discussion boards, the researcher ex-
aminied quantitative and qualitative
aspects of the discussion board posts.
He counted total number of posts as
a whole learning community and in-
dividual participant posts to help de-
determine the receptiveness of this form
of communication. The researcher
qualitatively analyzed patterns among
the discussion threads and the con-
tent of the threads to determine the
effectiveness of the online learning
community. He coded and identified
patterns for types of interaction and
discussion content in the discussion
board threads as follows:

**Procedures**

To find meaningful answers to the
research question, an appropriate
research design and associated meth-
odology is a requirement. Bilen and
Casella (2007) state, regarding qualitative
dissertations, that “the context in which
you produce it is as significant as the
topic you write about” (p. 3). From the
purpose of this study, it is apparent that
a context is extremely important. To an-
swer the research question, experiences
as described from the participants’ per-
spective must be captured and explored
to draw meaning. However, certain
aspects of the study can be examined
through a quantitative lens.

Quantitative research in the form
of descriptive research focuses on the
black and white, with little consid-
eration of those grey areas where qualita-
tive approaches can be implemented to
supplement data collection. The use of
descriptive statistics provides quantita-
tive descriptions about the sample in a
manageable form (Trichom & Donnelly,
2007, p. 264). It would be an injustice to
not consider quantitative aspects of the
study to provide a more well-rounded
analysis of the study’s results. The use
of surveys can allow the researcher
to capture descriptive data about the
participants in an efficient and effect-
tive manner. Therefore, the researcher
applied a mixed-methods, triangulated
strategy in carrying out the evaluation
components of this study. By applying a
mixed-methods approach for the evalu-
ation of the online induction program,
the study can draw a clearer picture
from the data.

To collect data, the researcher used a
number of instruments in the study. The
researcher collected quantitative data
through surveys and tallies of the types of
interactions that took place on the wiki.
The quantitative data were complemented
by qualitative information from discus-
sion board threads, questionnaires, and
focus groups. The researcher used mul-
tiple instruments and sources to triangu-
late the data to add to the validity of the
study (Creswell, 2009, p. 191).

**Presurveys.** To establish a baseline,
the researcher gave a self-constructed
presurvey to all participants of the study.
The new inservice teachers and contribu-
tors were asked to complete a pre-survey
so that data from both groups taking part
in the program could be captured. The
content of the new teacher presurvey
varied from the contributor presurvey.

The new teacher presurvey served a
dual purpose. First, the survey results
provided the researcher with informa-
tion on the teachers’ prior knowledge
and understanding of upcoming
induction topics. Second, the presurvey
results provided a baseline measure that
was used for comparison to the post-
survey results. The new teacher presur-
vey was divided into sections related to:
(a) comfort, familiarity, and usage of
Web 2.0 technologies; (b) accessibility
to seek support; (c) discussion boards
as a source of reflection and support;
and (d) areas dealing with the planned
induction themes: integrating technol-
y in the classroom, assessment and
grading, differentiation of instruction,
and special education as it relates to
inclusion.

The researcher essentially used the
contributor presurvey to provide a
baseline measure of contributors’ under-
standing and usage of an online learning
community’s mechanisms relative to
serving as a source for information and
support system. The contributor pre-
survey sections included: (a) comfort,
familiarity, and usage of Web 2.0 tech-
nologies; and (b) discussion boards as a
source of providing support. To ensure
the survey items were helpful in answer-
ing the study’s research questions, the
researcher mapped all survey items ac-
cording to research question.

**Discussion boards.** The discussion
boards served a means for the online
learning community’s participants to com-
municate, reflect, share, and seek support.
Asynchronous discussion technology al-
lowed participants to communicate with-
out being available at the same time. Such
convenient forums to seek commonality
may lead to avenues of “collective inquiry”
(DuFour, 2008) found in face-to-face pro-
fessional learning communities. DuFour
(2008) describes collective inquiry “as
the process in which educators engage as
they make significant decisions” (¶ 2).
The researcher also analyzed collective inquiry
and the group’s response to find under-
standing through qualitative analysis of
the discussion boards.
The researcher asked new teachers
and contributors to take part in the dis-
cussions on a monthly basis for a one-
week time period. Teachers posed ques-
tions and responded to other teachers’
questions, and contributors answered
questions, facilitated reflection, and net-
worked with teachers.

The discussion boards provided a
manner in which the teachers could take
part in a self- and collective reflection
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tent of the threads to determine the
effectiveness of the online learning
community. He coded and identified
patterns for types of interaction and
discussion content in the discussion
board threads as follows:
Teacher to Group (TG)
Teacher to Teacher (TT)
Teacher to Contributor (TC)
Contributor to Teacher (CT)
Contributor to Contributor (CC)

The researcher summarized these data using percentages of posts falling into each category. In addition to the type of interaction among the discussion board posts, he also coded the actual content of the discussion board threads for patterns to identify common themes among the threads. To establish a consistent systematic process in the analysis of the discussion board data, he used the following coding procedure in the study:

1. The researcher copied discussion board posts from the wiki and pasted them into a Microsoft Word file.
2. The researcher read the entire discussion board thread to gather the overall “sense” (Tesch as cited in Cresswell, 1990, p. 186) of the discussion.
3. After reading the entire thread, the researcher went back to the original post and labeled the correspondence according to the types of interaction previously identified as TG, TC, CT, and CC.
4. Next, the researcher used the Microsoft Comment Tool to identify lists of topics.
5. After reviewing all the posts in this manner, the researcher went back to sort the topics to identify common clusters of topics to create categories (Berg, 2007).
6. The researcher assembled the categories to establish common themes among the discussion posts.

The systematic procedure, combined with the tallying system and using direct quotes from the discussion boards, promoted an objective view of the data and increased the trustworthiness of the results.

Postsurveys. The participants received postsurveys in May to compare responses to the presurvey results. The new teachers took a postsurvey with topics aligned with the presurvey topics and questions mapped to the study’s research questions. The researcher collected the data from the surveys to formulate descriptive statistical information in the form of tables.

The contributors took a different postsurvey than the new teachers to gather data about their perspective of the effectiveness of the program. The topics in the postsurvey were aligned with the presurvey items and mapped to the research questions. The researcher used the data from the Likert survey items to provide descriptive information and summarized them in tables. Similar to the presurveys, the researcher mapped each postsurvey item to a research question.

Open-ended questionnaire. The researcher asked participants open-ended questions in the beginning of May to help prepare for the focus-group session and gather additional qualitative data on the effectiveness of the online learning community. The use of a questionnaire prior to the actual focus group allowed the researcher to focus on minority opinions as well as prevailing opinions during the focus-group sessions (Berg, 2007). The researcher delivered the questions through a discussion board in the online learning community.

Focus groups. Two extended focus-group sessions lasting approximately 75 minutes each served as a final data collection procedure to gather information about the effectiveness of the online learning community at the end of May. The researcher reviewed the questionnaires prior to the focus groups. By doing so, the researcher applied an extended focus-group technique of having the participants to develop points of view prior to the focus group, therefore allowing the researcher to identify majority and minority points of view for the session (Berg, 2007). The researcher was the moderator for the focus-group sessions, which took place in the middle school library after school hours. The researcher videotaped the sessions using a Flip video camera as well as a Sony digital recorder for a backup. The researcher used the notes and video as the primary data sources from the focus-group sessions. Due to the nature of the study and the fact the researcher worked with all the participants throughout the span of the 9-month study, the researcher had established a rapport with the participants, which assisted with the focus-group moderation.

Research question. Is the online learning community accepted as a viable component of a new-teacher induction program?

The researcher used surveys, questionnaire, and focus-group data to evaluate the new program approach in the school district’s induction program.

Results

Results from the data suggested a positive response to the use of the online learning community model. The researcher collected data from both the new teachers and contributors to measure the acceptance from “both sides” of the induction process.

Surveys. The researcher used a 4-point Likert scale for the survey questions. The new inservice teacher postsurvey showed that 100% of the participants agreed or strongly agreed with the helpfulness of the online learning community on a variety of items, as displayed in Table 4. To further support the positive evaluation, all the mean responses were extremely high, with little variability among the answers. Most important, there was an overwhelmingly positive response to using the online learning community to help improve instruction in the classroom.

Table 4. New Teachers: Overall Evaluation of Online Learning Community Experience

<table>
<thead>
<tr>
<th>Item</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tool to Help Improve Instruction</td>
<td>0.0</td>
<td>0.0</td>
<td>18.8</td>
<td>81.3</td>
<td>3.61</td>
<td>.40</td>
</tr>
<tr>
<td>Helpful to Seek Support</td>
<td>0.0</td>
<td>0.0</td>
<td>43.8</td>
<td>56.3</td>
<td>3.56</td>
<td>.51</td>
</tr>
<tr>
<td>Dialogue Among Teacher to Teacher</td>
<td>0.0</td>
<td>0.0</td>
<td>43.8</td>
<td>56.3</td>
<td>3.56</td>
<td>.51</td>
</tr>
<tr>
<td>Dialogue Among New Teacher and Contributor</td>
<td>0.0</td>
<td>0.0</td>
<td>31.3</td>
<td>68.8</td>
<td>3.69</td>
<td>.48</td>
</tr>
</tbody>
</table>

Note. N = 16. SD = strongly disagree, D = disagree, A = agree, SA = strongly agree. Reported as a percent of the total number of participants.
The contributors shared a similar response to the overall evaluation of the online learning community. One-hundred percent of the contributors agreed or strongly agreed that the community was a useful tool in all the survey categories, as displayed in Table 5. The high average means among the ordinal responses with little variability demonstrates a high acceptance level from the contributors.

**Discussion boards.** A total of 381 discussion board replies were posted over the span of this program. Table 6 illustrates descriptive information about the discussion board posts according to the originator and target audience of each post. Interestingly, contributors generated half of the posts, with the teachers as the target audience. Conversely, less than 6% of posts were contributors holding discussions with other contributors as the target audience. Finally, the teacher-initiated responses constituted around 40% of the total posts.

In addition to looking at the origin and target audience of each discussion board post in the online learning community, the researcher identified six themes among the 381 posts using the coding process identified in Table 7.

**Questionnaires and focus groups.** Due to the limitation of collecting and testing the significance of ordinal data, it was important to collect qualitative data through questionnaires and focus groups to better triangulate the results. All of the participants shared positive feedback regarding their experiences using the online learning community, and many cited specific examples.

Sense of connectedness. The new teachers found the online learning community to be a positive component of their induction process. A sense of connectedness and preferred manner to reflect were the most common themes found among the new teachers’ responses from the questionnaire. Table 8 identifies the themes and number of corresponding responses per theme among the teachers, whereas Table 9 identifies the themes and respondents for the contributors. Some responses overlapped themes, depending on the respondent’s information.

A new teacher shares:

As a new teacher, I have found that the online learning community has been extremely beneficial to me this year. Not only does it provide a wonderful resource of ideas and strategies but also it gives you a sense that others are sharing your challenges and at the same time your successes. It was nice having your peers to collaborate with and I also enjoyed having the opportunity to learn from the many contributors that participated on our induction. (personal communication, May 6, 2010)

The contributors shared similar opinions about the sense of connectedness. An assistant principal provides a unique perspective:

The interactive nature of the posts, as well as the wiki in general promotes sharing. I think back to the “old days” of writing down one’s reflections or thoughts on a particular topic…. Sometimes, you received feedback, but only from one source, such as the individual leading the induction program. With this format, feedback comes from multiple sources and more importantly, from individuals with varying backgrounds. Also, users not only get feedback, but can respond to that feedback…. (personal communication, May 12, 2010)

**Reflection.** Both the new teachers and contributors identified how the experience facilitated the practice of reflection. A new teacher responds:

I could relate with other teachers and reflect on my own practices as I read their [other teachers’] discussion threads.

A university professor shares:

From my perspective, follow up was very important to me with the face-to-face piece. By creating the wiki, an online community was generated with the teachers

<table>
<thead>
<tr>
<th>Table 5. Contributors: Overall Evaluation of Online Learning Community Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theme</strong></td>
</tr>
<tr>
<td>Dialogue between Teacher and Teacher</td>
</tr>
<tr>
<td>Dialogue between New Teacher and Contributor</td>
</tr>
<tr>
<td>Dialogue between Contributor and Contributor</td>
</tr>
<tr>
<td>Ability to Share Information via the Wiki</td>
</tr>
</tbody>
</table>

Note. N = 18. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree. Reported as a percent of the total number of participants.

<table>
<thead>
<tr>
<th>Table 6. Discussion Board Analysis: Post Originator and Target Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pattern</strong></td>
</tr>
<tr>
<td>Teacher to Group</td>
</tr>
<tr>
<td>Teacher to Teacher</td>
</tr>
<tr>
<td>Teacher to Contributor</td>
</tr>
<tr>
<td>Contributor to Teacher</td>
</tr>
<tr>
<td>Contributor to Contributor</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 7. Discussion Board Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theme</strong></td>
</tr>
<tr>
<td>Encouragement/support</td>
</tr>
<tr>
<td>Networking</td>
</tr>
<tr>
<td>Question</td>
</tr>
<tr>
<td>Reflection</td>
</tr>
<tr>
<td>Sharing of ideas</td>
</tr>
<tr>
<td>Sharing of resources</td>
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</tbody>
</table>

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to offer a place for support. This is important to help them create those self-reflection skills. I was able to guide them in this process.

Avenue for support. The format created an avenue for the new teachers to seek support in the community. A new teacher responds:

The special education director came to visit my classroom as a result of our discussions on the wiki. She was able to help me with a student that I was struggling with this school year. It was nice that she didn’t merely present a bunch of information to us at a meeting then leave the picture. In fact, [another new inservice teacher] has the same student in the morning and she [special education director] ended up helping both of us. (personal communication, May 17, 2010)

A central office administrator discusses how the format gave them an opportunity to interact and support new teachers:

If it was not for the wiki, I would have never known that the teachers needed help. It gave me the opportunity to see they needed assistance, and I actually ended up visiting their classrooms and helping them with a student issue.

Recommendations for change in the format. After being asked if the new teachers would recommend any changes to the online learning community component of the program, the group discussed one recommendation. The new teachers recommended involvement from teachers in their second and third years of teaching. A new teacher explains, “I would have liked more contributions from the second-year teachers. This experience is fresh in their heads—would have been helpful. I liked reading [second-year teachers’] responses because I know they just went through this” (personal communication, May 17, 2010).

When asked what the contributors would change about the online learning community experience, participants expressed varying points that were not necessarily shared among the majority of participants, with the exception of two ideas:

1. Level of administrator involvement: A central office administrator suggested all the district administrators take part in the new teacher online learning community experience (personal communication, May 18, 2010).
2. Discussion format: A university professor recommended an ongoing discussion format rather than the planned one-week discussion formats that took place monthly (personal communication, May 18, 2010).

Discussion

From a quantitative point of view, the surveys indicate a strong acceptance of the online learning community as an effective component of a new-teacher induction program. One-hundred percent of the teachers and contributors agreed or strongly agreed that the tool was helpful for aiding instruction, seeking out support, and facilitating reflection. On a 4-point scale, teachers preferred reflection via the online learning community ($M = 3.69; SD = .48$) over reflection via the traditional paper process ($M = 1.56; SD = .89$). Contributors also saw the ability to share information via the online learning community as beneficial ($M = 3.85; SD = .44$).

The quantitative results certainly agree with the literature on trends of preferred methods of collaborating and learning (George, 2007; Hazari, North, & Moreland, 2009; Hur & Brush, 2009). As more and more people who have experience and preferences in using digital tools enter the teaching field, the preferred methods of forming professional learning communities will be in the form of new information and communication technologies. Additionally, Hazari, North, and Moreland (2009) note the importance of focusing on shifting from teacher-delivered to student-facilitated learning and using Web 2.0 tools such as wikis as the bridge to do so.

The program design facilitates and models the use of these technologies with the intention of application in the classroom. If the intention is to apply new technologies in the classroom, teachers need the opportunities to see and utilize such technologies in context (Sheehy, 2008). It is important to note that a variety of other Web 2.0 technologies are available to educators, and the use of any of these tools has the potential to produce similar results.

The design of the study called for a hybrid approach for effective new-teacher induction. Unfortunately, research is
lacking in the area of incorporating Web 2.0 technologies as a hybrid approach to facilitate and promote learning among educators, despite the influx of new educators with backgrounds in technology entering the field (Fahser-Herro & Steinkuehler, 2009–2010; Lei, 2009). L.F. Johnson, Levine and Smith (2009) note that more and more teachers see the value of integrating online collaborative environments into their practice. As a result, school systems are charged with developing the necessary infrastructures and training from the start of the teachers’ teaching experience. Finally, by applying the study’s design, schools can adjust to a new trend in learning that facilitates a “participatory culture” (Jenkins, Puroshutoma, Clinton, Weigel, & Robison, 2009, p. 3).

A strong sense of connectedness and of the tool being the preferred method for self-reflection were two common themes found among the new-teacher questionnaires. Both factors help counter teacher attrition. Marable and Raimondi (2007) warn of the dangers of growing a culture of ineffective teaching practices by not providing the necessary support systems. New teachers who feel supported and share a sense of connection have greater retention rates (S.M. Johnson, Berg, & Donaldson, 2005).

The results of this program evaluation indicate that the online learning community helped counter the isolation that teachers often encounter (Hur & Brush, 2009). Through a longitudinal study, S. M. Johnson and Birkeland (2003) describe “movers” as teachers who left their positions due to feelings of isolation, whereas teachers who experienced a sense of success and connected were less likely to become movers. With opportunities to be a part of a learning community and share experiences, the design supports the positive influencing factors associated with supporting new inservice teachers and counter- ing attrition.

The participants’ input from the surveys, questionnaires, and focus-group sessions help to substantiate that utilizing an online learning community to support professional development initiatives can be very powerful. Avoiding standalone professional development approaches helps to form a true professional learning community, which is shown to best serve professional development among teachers (Clark, 2001; Darling-Hammond & McLaughlin, 1995; Darling-Hammond & Richardson, 2009; Ullman, 2009).

The online learning community also supports the “anytime, anywhere” personalized learning that Web 2.0 tools facilitate for people (Fahser-Herro & Steinkuehler, 2009–2010, p. 60). During the focus-group session, a new teacher points out the benefit of the online learning community’s conduciveness as it relates to time and place. A new teacher responds, “When using the wiki, I could go home relax, eat, recharge my battery, then go online when it was best for me” (personal communication, 2010). The contributors also shared the theme of the community being a convenient form of communication. A principal explains, “It was a convenient form to put out information to teachers. You can get the information and discuss things with professionals outside your building” (personal communication, May 18, 2010). Through Web 2.0 technologies, the online learning community created convenient and personalized avenues to personalized learning networks. Web 2.0 is allowing educators to cultivate social and professional connections in convenient anytime, anywhere environments (Greenhow, Robelia, & Hughes, 2010).

Limitations

The most obvious limitation to the study is the fact that it is limited to one school district. A greater sample involving multiple school districts and a higher number of participants would eliminate this limitation. Additionally, someone who works for the school district designed and coordinated the study. However, the potential for someone at the university level to study such a program through a school district–university partnership is certainly a real possibility to potentially reduce potential bias.

Implications

The online learning community’s overall evaluation as an accepted component of this school district’s induction program has proven to be a positive addition. Responses on the participants’ surveys, responses on the questionnaires, and discussions in the focus-group sessions all strongly indicate that the school district should continue the use of the online learning community. The new-teacher induction online learning community framework enhanced and expanded the experience of both the new teachers and contributors.

As more and more teachers and contributors take part in the new induction format, it is reasonable to speculate that there is potential to expand the online learning community format beyond new-teacher induction purposes. The format creates an anytime, anywhere professional development opportunity for educators in the school district to share ideas, instructional materials, and guidance through the discussion component.

Overall, the education field is in need of empirical research on the impact of these new and powerful ICTs. In particular, the role of Web 2.0 tools in developing and enhancing professional development communities of practice in the school setting is lacking in today’s literature. The strong positive results from this study call for expanded research in the area on a grander scale involving a larger sample of schools with varying characteristics.

Author Note

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References