

Describing the Professional Development Needs of Preservice Business Education Teachers

Jeremy Jeffery, Ph.D., Christina Force, Ed.D., John G. Cannon, Ph.D.

About the Authors

Jeremy Jeffery, Ph.D. Associate Professor and M.Ed. in Business Education Co-Coordinator, Commonwealth University of Pennsylvania - Bloomsburg (jjeffery@bloomu.edu)

Christina Force, Ed.D. Associate Professor and M.Ed. in Business Education Co-Coordinator, Commonwealth University of Pennsylvania - Bloomsburg (cforce2@commonwealthu.edu)

John G. Cannon, Ph.D. Associate Professor and CTE Program Coordinator, University of Idaho (johnc@uidaho.edu)

Abstract

For many states, those seeking licensure through a traditional pathway program must complete a culminating student teaching experience. As part of the student teaching experience, student teachers are expected to master a variety of responsibilities that will prepare them to become future teachers, such as instructional strategies, assessment, classroom management, and others. An important component of student teaching includes ongoing professional development. The purpose of the study was to describe the perceptions of greatest needs and levels of competency of professional development of business education student teachers during their student teaching experience. The Borich's Needs Assessment Model framework served as the conceptual framework for the study. Results suggested that business education student teachers were strong with instructional and assessment strategies and competent with planning and professional development. Implications from the study are also included and recommendations for target professional development are also discussed.

Keywords: Borich's Needs Assessment Model; professional development; business education student teaching

Introduction

Nationally, each academic year, students from a variety of disciplines will complete a culminating structured, student teaching internship as their capstone experience through a traditional pathway leading to licensure (Risko & Reid, 2019). This rigorous, usually full-time obligation is completed under the supervision of a cooperating teacher who originates from the same discipline as the student teacher, and this is a common practice for traditional licensure programs across the United States (Goldhaber, 2019). During the teaching internship, preservice teachers are expected to master competencies to better prepare them for their future career as fully certified or licensed teachers. However, preparedness and training for teachers who are on the cusp of being fully-fledged teachers may vary by program, and further additional training may be needed before preservice teachers feel fully prepared to enter the classroom.

According to the National Education Association (NEA), professional learning is an integral part of becoming an effective teacher, and the ability to make key adjustments as needed as a student teacher enters the teaching profession (NEA, 2023). Through a student teacher's structured teaching experience, competencies must be addressed to make sure that they are effectively prepared for the rigors of becoming a professional teacher (Ribaeus et al., 2022). When successful professional learning opportunities are embedded in student teaching, it can positively impact the ability of student teachers to meet teaching competencies and continue to refine their teaching practices before concluding their student teaching experiences (Darling-Hammond et al., 2017).

In the field of business education, preservice teachers must be prepared for an ever-changing environment

related to technology, classroom management, professional acumen, and other responsibilities faced by professionals (Jeffery, 2020). Also, there has been an increase in demand for subjects related to Science, Technology, Engineering, and Math (S.T.E.M.), which may call for an even greater focus on targeted preservice and inservice learning opportunities (Jeffery, 2020; Jeffery, et al., 2022). Some states have also incorporated the usage of performance-based assessments, such as the edTPA. A passing score for the edTPA is required by some states as part of student teaching, and requires teaching interns to demonstrate, through video recordings and self-reflections, areas of teaching that include preparation, instruction, and professionalism (De Voto et al., 2021).

In the state of Pennsylvania, student teachers are expected to master a variety of competencies that include planning and preparation, instructional strategies and delivery, assessment, professionalism, and effective classroom management (Pennsylvania Department of Education, 2012). These competencies are embedded in a variety of student teaching requirements, including preparing for effective lessons, effective classroom and lab management, instructional delivery, and others that ensure that teaching interns are well-rounded in everything related to business education teaching.

Professional development (PD) has been described as the ongoing process of improving teaching processes, such as infusing new ideas into teaching practices (Avalos, 2011). It is acknowledged that PD primarily refers to inservice learning and training for a teacher's continuous professional improvement. This study focused on preservice teachers and the ongoing process of improving the teaching process for this group is described as learning activities. Primarily, the most important learning activity is the teaching internship (student teaching) experience. Furthermore, it was suggested by Borko et al. (2010) that professional learning should be targeted to meet the needs of all participants and focus on the needs of the participants so that they can have a better frame of mind to implement the learning into practice. As researchers, we measured the perceptions of learning needs among participants who selected areas of greatest need and considered areas where they perceived themselves to be the strongest.

Purpose and Research Objectives

The purpose of this exploratory research study was to describe the perceptions of learning needs of preservice business education student teachers

in the state of Pennsylvania. The Borich's (1980) *Needs Assessment Framework* served as the conceptual framework for the study and served as the study design. This type of framework is designed to measure the gap between what currently exists and what could exist (Borich, 1980). The specific research objectives for this study were as follows:

1. describe the demographic characteristics of the preservice business education teachers who responded to the survey;
2. determine the preservice business education teachers perceived level of importance of teaching concepts;
3. determine the preservice business education teachers perceived levels of competence of teaching concepts; and
4. determine perceived learning needs of pre service business education teachers.

Literature Review

The importance of a quality education is a priority for all students of all abilities. The push to produce teachers that can provide a quality education while also meeting academic standards and testing requirements begins with teacher preparation. A preservice teacher is a student who is enrolled in a teacher preparation program (Ryan et al., 2017). Preservice teachers must master a variety of instructional practices that include:

- manage classroom activities,
- promote student learning,
- set and measure learning outcomes, and
- implement effective classroom management (Sandholtz, 2011).

Preservice teachers at both the graduate and undergraduate level are required to complete a specific program of study, observations and field experiences prior to the capstone internship. Student teaching takes theory and pedagogy learned from coursework and allows preservice teachers the opportunity to practice their craft. Student teaching is a university-based apprenticeship that allows preservice teachers to teach under the direction of a cooperating teacher (Hoffman et al., 2015). The cooperating teacher usually has several years of teaching experience. In addition to the cooperating teacher, the university provides a faculty member that will supervise this semester long experience. The goal of student teaching is to prepare the preservice teacher to be a competent teacher (Ryan et al., 2017).

Danielson (2007) identified a framework for teaching which is a guide to quality teaching. The framework is based on educational research and best practices.

This framework consists of the following domains:

1. Planning and Preparation;
2. The Classroom Environment;
3. Instruction; and
4. Professional Responsibilities (Danielson, 2007).

Each of these domains includes specific components necessary to be a distinguished teacher. Domain 4 includes six components with one specifically related to professional development Component 4e, “growing and developing professionally”. Professional development is an integral component to becoming a high-quality teacher.

After several years of coursework and a semester of student teaching it is assumed that those earning a teaching degree are prepared for a classroom of their own. However, it is impossible to prepare preservice teachers for everything they will encounter in the classroom. The drawback of student teaching is that the preservice teacher is not in their own classroom. Many of the criticisms of student teaching deal with the length of time of the student teaching experience and the quality of the cooperating teacher and supervisor (Ferlazzo, 2022). The constraints of student teaching leave many areas in which preservice teachers still need to develop. A study by Sandholtz (2011) of 290 students enrolled in a teacher preparation program identified ineffective instruction areas. The study found the following instructional categories needed development:

- instructional strategies,
- knowledge of students,
- planning and preparation,
- time pressures, and
- subject matter (Sandholtz, 2011).

In a study conducted by Jeffery et al. (2022) of novice Pennsylvania business education teachers regarding PD needs, the top 3 areas of concern included:

1. teaching skills and concepts in business;
2. integrating current advances in technology into the curriculum; and
3. teaching students to think critically and creatively.

Teacher retention is a major problem and has been exasperated by the COVID19 pandemic. In a survey conducted by Karbowski (2022, April 12) of over 4600 teachers it found that teachers were facing an increased workload, had less planning time due to staff shortages and were spending more time addressing students’ mental health issues.

Nationally, teacher turnover is at about 16%, but it is predicted to rise to 24%-54% which will increase the current teacher shortage (Perna, 2022). Professional development plays an important part in filling in gaps and identifying training needs that will allow for the selection of professional development that will enhance instructional practices and build confidence. Competent teachers are more likely to stay in the teaching profession. Professional development improves teacher performance and the education students receive (Ajani, 2019).

Conceptual Framework

The Borich’s Needs Assessment Model served as the conceptual framework for the study. The researchers sought to describe the differences in the levels of perceived importance and competency for a specific sample of participants completing student teaching, and this framework can help to measure the differences (Borich, 1980). *The Borich’s Needs Assessment* has been used in previous studies addressing the professional development needs of different content areas teachers, such as agricultural education (Garton & Chung, 1997), and has also been used to address the professional development needs of business education teachers (Kitchel et al., 2009; Kitchel et al., 2010; Kitchel et al., 2013; Jeffery et al., 2022). The framework allows researchers to conceptualize the perceived differences in various types of professional development needs and also measure perceived levels of competency that affect a target sample, which for this study included preservice business education students completing student teaching requirements.

Research Design and Methodology

A quantitative research design was employed to address the research objectives. To collect the data, a survey instrument was developed that incorporated statements regarding learning needs and levels of competency. The instrument was developed using a study of the perceptions of professional development for novice Pennsylvania business education teachers as a guide (Jeffery et al., 2022). “Novice” was defined as those teachers as having five years or less of teaching experience. Since the population of this study included student teachers, with a target sample of business education student teachers, the survey was revised to focus on the learning needs of business education student teachers. Participants self-selected statements regarding their perceptions of professional development and self-selected their levels of competency. The instrument scaling included five distinctive levels, ranging from “1” (lowest competency) to “5” (highest competency), and sub-levels in between numbers one and five.

Before the survey was distributed, it was reviewed by a panel of experts familiar with business education and student teaching. The panel included an array of former business teachers who are now post-secondary teacher educators.

The survey instrument was modeled after previous studies from business and agricultural education that used the Borich's Needs Model to examine professional development (Garton & Chung, 1997; Kitchel, 2009; Jeffery, 2022;). The survey instrument was revised to meet the objectives of this study and to connect to the target sample of preservice business education teachers. As noted, the survey instrument was reviewed by a panel of experts before it was disseminated to the target sample.

Since the target sample for the study included all student teachers in business education, a purposeful sample was used as it allowed the researchers to target a specific sub-set of participants who were completing their final semester of their program, which was the teaching internship requirement (Patton, 2014; Etikan et al., 2016). Included in the study were business education teachers pursuing licensure during their final semester of either their undergraduate or graduate program. Data were collected from spring 2019 through the spring 2022 from a four-year public university in the mid-Atlantic region.

To reach the target sample, participants were solicited via email to participate in the research study towards the end of their capstone student teaching experience. An invitational email was distributed to each member of the convenience sample to participate, which included the details of the study and the ability to opt-in for participation purposes. Once the first contact email was distributed, referred to as the initial email, an additional two emails were also sent out to try and increase the likelihood of participation in the study. No incentives were provided to participate, and participants were not negatively affected if they chose not to participate (Dillman et al., 2014).

To measure the differences in perceptions of PD among the target sample, *mean weighted discrepancy scores (MWDS)* were calculated for each statement. Studies in the past have also focused on using this type of methodology to determine the needs of the target sample and calculate the scores to prioritize each item among a sub-set of statements (Cannon et al., 2013, Cannon et al., 2012; Duncan et al., 2006; Jeffery et al., 2022; Kitchel et al., 2013; Kitchel et al., 2010; Kitchel et al., 2009;). The researchers were

then able to prioritize and rank the items according to the most pressing learning needs to the least pressing learning needs.

Results and Findings

The results from the data analysis include the importance ratings for teaching concepts related to business education, perceived competence ratings for those concepts, and preservice business education perceived learning needs.

Research Objective 1: Describe the demographic characteristics of the preservice business education teachers who responded to the survey

The school years included in the survey included 2018 – 2019, 2019 – 2020, and 2021 – 2022. Altogether, 19 participants completed the survey and both undergraduate and graduate students were included in the sample. There were 11 female and eight male participants, including eight who were categorized as “undergraduate” with 11 categorized as “graduate”. Additionally, the average age of undergraduate participants was 22, and the average age of graduate participants was 25. Five participants were student teaching at the middle or junior high level, and 14 participants were student teaching at the high school/secondary level. Student teachers were teaching in a variety of business education content areas including Accounting (n = 9), Computer Applications (n = 9) General Business/Introduction to Business (n = 6), Personal Finance (n = 6), Career Development (n = 5), and Science, Technology, Engineering and Math (S.T.E.M.)-related subjects (n = 5).

Research Objective 2: Determine the preservice business education teachers perceived level of importance of teaching concepts

Table 1 provides the findings for the first research objective. The two items with the highest mean scores for importance were “teaching skills and concepts in your area of business” (M = 4.81, SD = 0.40) and “assessing and evaluating student performance” (M = 4.81, SD = 0.40). The remaining top five statements were “developing performance-based

assessment instruments” (M = 4.75, SD = 0.45), “determining the content that should be taught in specific courses” (M = 4.63, SD = 0.62), and “integrating life skills into the curriculum” (M = 4.63, SD = 0.62). The item with the lowest mean score for importance was “planning and conducting student field trips” (M = 3.75, SD = 0.77) followed by “conducting parent/teacher conferences” (M = 4.06, SD = 0.93) and “teaching gifted and talented students” (M = 4.06, SD = 1.12).

Table 1 • Importance ratings from each statement on the questionnaire (N = 16)

Statement from questionnaire	Importance	
	M	SD
Teaching skills and concepts in your area of business.	4.81	0.40
Assessing and evaluating student performance.	4.81	0.40
Developing performance-based assessment instruments.	4.75	0.45
Determining the content that should be taught in specific courses.	4.63	0.62
Integrating life skills into the curriculum.	4.63	0.82
Providing career exploration activities in your business area.	4.56	0.89
Teaching students to think critically and creatively.	4.56	0.73
Teaching students problem-solving and decision-making skills.	4.56	0.73
Integrating current advances in technology into the curriculum.	4.50	0.63
Using computers/technology in classroom teaching.	4.50	0.73
Motivating students to learn.	4.50	0.89
Using multimedia equipment in classroom teaching.	4.44	0.73
Managing student behavior problems.	4.44	0.89
Teaching learning disabled students.	4.38	0.96
Locating and selecting student references and materials.	4.38	0.62
Embedding national and state business education standards into the business education curriculum.	4.38	0.62
Organizing and supervising computer instruction.	4.38	0.62
Teaching gifted and talented students.	4.06	1.12
Conducting parent/teacher conferences.	4.06	0.93
Planning and conducting student field trips.	3.75	0.77

Research Objective 3: Determine the preservice business education teachers perceived levels of competence of teaching concepts.

Findings for the second research objective can be found in Table 2. The statements with the highest scores for competence rating were “teaching skills and concepts in your area of business (M = 4.50, SD = 0.52) and “assessing and evaluating student performance” (M = 4.50, SD = 0.52). “Teaching students problem-solving and decision-making skills”

(M = 4.38, SD = 0.81) and “motivating students to learn” (M = 4.38, SD = 0.96) were the items with the second highest mean scores. The five teaching statements with the lowest scores were “planning and conducting student field trips” (M = 2.94, SD = 1.06), “conducting parent/teacher conferences” (M = 3.44, SD = 0.96), “teaching gifted and talented students” (M = 3.44, SD = 1.03), “integrating current advances in technology into the curriculum” (M = 3.81, SD = 1.11), and “teaching learning disabled students” (M = 3.88, SD = 0.96).

Table 2 • Competence ratings from each statement on the questionnaire (N = 16)

Statement from questionnaire	Competence	
	M	SD
Teaching skills and concepts in your area of business.	4.50	0.52
Assessing and evaluating student performance.	4.50	0.52
Teaching students problem-solving and decision-making skills.	4.38	0.81
Motivating students to learn.	4.38	0.96
Using computers/technology in classroom teaching.	4.25	0.93
Organizing and supervising computer instruction.	4.25	0.86
Developing performance-based assessment instruments.	4.19	0.91
Integrating life skills into the curriculum.	4.19	1.17
Providing career exploration activities in your business area.	4.19	1.11
Teaching students to think critically and creatively.	4.19	0.98
Locating and selecting student references and materials.	4.13	0.89
Embedding national and state business education standards into the business education curriculum.	4.13	0.96
Managing student behavior problems.	4.06	0.93
Determining the content that should be taught in specific courses.	3.94	0.77
Using multimedia equipment in classroom teaching.	3.94	0.77
Teaching learning disabled students.	3.88	0.96
Integrating current advances in technology into the curriculum.	3.81	1.11
Teaching gifted and talented students.	3.44	1.03
Conducting parent/teacher conferences.	3.44	0.96
Planning and conducting student field trips.	2.94	1.06

Research Objective 4: Determine perceived learning needs of preservice business education teachers.

The perceived learning needs were calculated and ranked using a *Mean Weighted Discrepancy Score (MWDS)*, which has been used in numerous studies related to business education (Kitchel et al., 2009; Kitchel et al., 2010; Kitchel et al., 2013; Jeffery et al., 2022). MWDS was calculated using the following formula:

1. Discrepancy Score = Importance Rating – Competence Rating (for each response)
2. Weighted Discrepancy Score = Discrepancy Score x Mean Importance Rating
3. MWDS = Sum of Weighted Discrepancy Score/ Number of Participant Responses (Sorensen et al., 2014; Umar et al., 2017).

Results of the MWDS calculations are found in Table 3 in ranked order. The top four perceived learning needs of the business teachers participating in this study were “determining the content that should be taught in specific courses” (MWDS = 3.18), “integrating current advances in technology into the curriculum” (MWDS = 3.09), “planning and conducting student field trips” (MWDS = 3.05), “developing performance-based assessment instruments” (MWDS = 2.67). “Teaching gifted and talented students” and “conducting parent/teacher conferences” were tied for fifth (MWDS = 2.54). The lowest rated concept was “organizing and supervising computer instruction” (MWDS = 0.55), followed by “motivating students to learn” (MWDS = 0.56) and “teaching students problem-solving and decision-making skills” (MWDS = 0.86).

Table 3 • MWDS from each statement on the questionnaire (N = 16)

Statement from questionnaire	MWDS
Determining the content that should be taught in specific courses.	3.18
Integrating current advances in technology into the curriculum.	3.09
Planning and conducting student field trips.	3.05
Developing performance-based assessment instruments.	2.67
Teaching gifted and talented students.	2.54
Conducting parent/teacher conferences.	2.54
Using multimedia equipment in classroom teaching.	2.22
Integrating life skills into the curriculum.	2.02
Teaching learning disabled students.	1.91
Providing career exploration activities in your business area.	1.71
Teaching students to think critically and creatively.	1.71
Managing student behavior problems.	1.66
Teaching skills and concepts in your area of business.	1.50
Assessing and evaluating student performance.	1.50
Using computers/technology in classroom teaching.	1.41
Locating and selecting student references and materials.	1.09
Embedding national and state business education standards into the business education curriculum.	1.09
Teaching students problem-solving and decision-making skills.	0.86
Motivating students to learn.	0.56
Organizing and supervising computer instruction.	0.55

Conclusions, Discussions, and Recommendations

This study utilized the *Borich's Needs Assessment* model to determine areas in which preservice business education teachers believed they were most competent in and those that they deemed most important. The participants in this study were able to rank various statements related to competency and learning needs. Professional development is necessary to becoming a high-quality teacher, and teachers' are responsible for identifying what PD they require (Danielson, 2007). The top three areas that were most important for professional development as ranked by the preservice teacher participants included teaching skills and concepts in the area of business; assessing and evaluating student performance; and developing performance-based assessment instruments. An interesting finding was that out of the three areas perceived as needing further learning opportunities two of these were areas ranked as being most competent. Teaching skills and concepts in business and assessing and evaluating student performance were ranked highest in terms of skills in which they had perceived levels of competency.

Rutten (2021), who performed an exhaustive review of literature, and through the literature review process, adapted a framework for a *theory of action* to integrate professional development that is specific and targeted for student teachers. The framework included those accounts for existing research and turning the research into action steps (Rutten, 2021). It can be concluded from the study that planning and conducting field trips was the area in which participants cited as having the least amount of competence. The next two weakest in competence were teaching gifted and talented students and conducting parent/teacher conferences. By implementing a framework such as Rutten's (2021), this would allow those training preservice teachers (such as a student teacher supervisor, professor, and/or cooperating teacher) to focus on the greatest needs through theory and research, and turning them into actionable steps.

For many student teachers, it can be a challenge teaching to a diverse student population and meeting the needs of all students (Cooc, 2019; White, 2013). Also, student teachers are expected to be able to communicate with a variety of stakeholders, including parents/guardians, as part of professional responsibilities. The results of the study suggested that two areas of lower perceived competency included teaching to a diverse student population and special

education and conducting parent/teacher conferences. By integrating the experiences of business education student teachers, this may help to increase their knowledge and experiences with these two key areas and successfully target their learning needs (Stenberg, 2011). Those involved with teaching interns, such as teacher education faculty and cooperating teachers, can help business education student teachers design professional development that focuses on teaching to a diverse population and communicating with a variety of stakeholders, which may in turn, positively increase perceived levels of competency.

In comparing the top three perceived learning needs of novice teachers (Jeffery et al., 2022) to this study the only common need was "integrating current advances in technology into the curriculum." This area was second in importance for both novice and student teachers. The number one perceived learning need for student teachers was "determining the content that should be taught in specific course" and for novice business education teachers it was "teaching skills and concepts in business." Novice business education teachers third most pressing need included "teaching students to think critically and creatively" (Jeffery et al., 2022). In third place for student teachers was "planning and conducting student field trips." These two groups had a majority of different learning needs with only one in common. This is most interesting as only a few years of teaching experience separates a student teacher from a novice teacher. Therefore, it is important that those designing professional development recognize the varying learning needs between each of these groups.

This instrument included a question that asked participants what reasons would impact their desire to remain in the profession or leave. One participant mentioned "classroom management" as a possible reason for leaving the profession. This was not surprising as the participants rated "managing student behavior problems" as relatively low in reference to perceived learning needs $MWDS=1.66$ and a relatively strong competence level of $M=4.06$. Zulkifli et al. (2019) also found that preservice teachers that participated in their study had a "good understanding on classroom management." School districts strive to retain teachers while seemingly struggling with increased teacher turnover (Perna, 2022). Participants in this study indicated "quality of district, administrative support and job fulfillment" were impactful for deciding to remain in the profession. It may be useful for school districts to understand areas of concern regarding retention so professional development can address these issues.

Additionally, the results and conclusions drawn from the study can help to start the process to discover the best way to meet the needs of preservice business education teachers. Post-secondary professionals, such as student teacher supervisors, program coordinators, field placement coordinators, professors, and others, can design PD that is reflective of the most pressing and current needs of preservice business education teachers. The most important areas of need included teaching skills from business education and forms of assessment strategies. It is recommended that when designing professional development, it is important to not dismiss any area of competency because as this study indicated even though a teacher feels competent, they may perceive that those areas warrant additional professional development. A further recommendation is allowing teachers to identify and create their own professional development plan. The conclusion from the study includes targeting PD for developing and implementing a variety of assessment strategies, with a focus on performance/ authentic-based assessments.

Limitations

This study is limited in scope because it only examined business education preservice teachers enrolled in one specific teacher education program in one mid-Atlantic state. Also, it should be noted that perceptions were measured from preservice teachers not yet in the field; as preservice teachers, they may have a limited scope of what they considered to have as professional development needs. In addition, the sample only consisted of 19 preservice teachers. This does not allow for generalizations regarding all preservice teachers. However, it can be a starting point for professional development for preservice teachers, especially those whose focus is Business Education.

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