

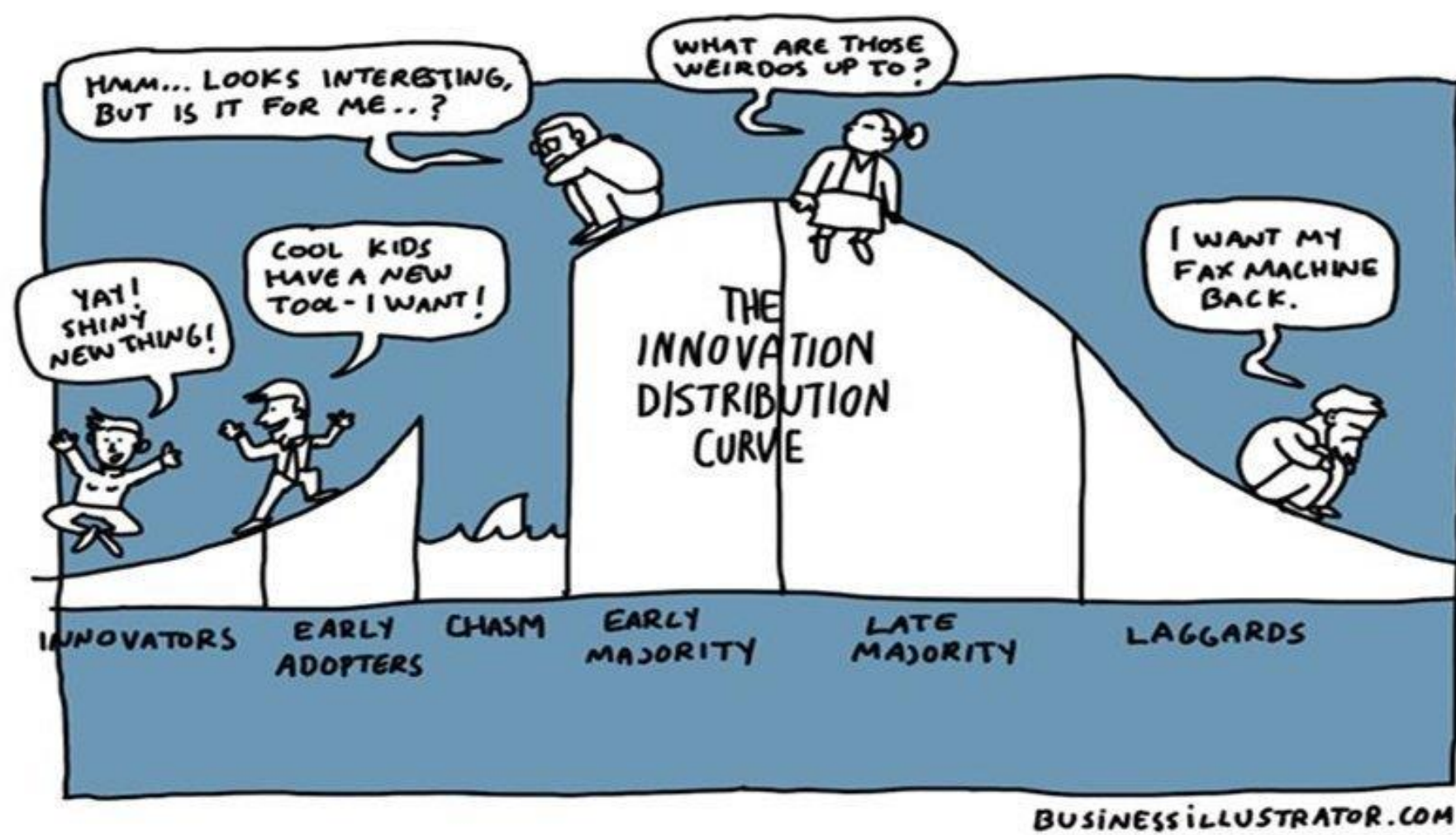
# Perceived Knowledge and Importance of Agricultural Education Record Keeping

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## Introduction/Framework

The current agricultural education model is comprised of three interconnected instructional components: [classroom instruction](#), [FFA](#), and [Supervised Agricultural Experiences \(SAEs\)](#) (Croom, 2008). Each student involved in a school-based agricultural education (SBAE) program is required to have an SAE wherein he/she works within different categories to reach specific learning opportunities. While educators may have their own reasoning for encouraging or requiring students to complete records associated with an SAE, there is still a question of [how educators and students utilize record keeping programs](#) within the classroom.



Rogers' (2003) diffusion of innovations theory is the "process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers, 1995, p. 5). The [diffusion of innovations theory](#) was used in this study to help navigate the [Agricultural Experience Tracker \(AET\)](#) record keeping program's acceptance and utilization in agricultural education classrooms. Each of the diffusion attributes serve to predict how an individual or group will perceive an innovation and [whether or not they will adopt it](#) (Hubbard & Sandmann, 2007). In addition to the aforementioned theoretical framework, the [Borich Needs Assessment \(1980\)](#) was used as a conceptual means for data collection. This

model was employed to determine the [perceived level of importance and competence](#) of secondary agricultural educators associated with using a specific record keeping program to keep accurate student SAE records.

## Methodology

The purpose of this study was to establish an opportunity for secondary agricultural educators to address their [in-service needs related to selected SAE components](#). The following research objectives guided this study:

- (1) Describe perceived importance to use selected SAE components to track students' agricultural experiences;
- (2) Describe perceived competency to use selected SAE components to track students' agricultural experiences; and
- (3) Determine the discrepancy among perceived importance and competency to use selected SAE components to track students' agricultural experiences.

The selected population was [all Montana secondary agricultural educators](#) who were still teaching at the time of the study ( $N = 105$ ). Data collection procedures were based upon the recommendations of Dillman, Smyth and Christian (2009) and yielded a [response rate of 44.7%](#) ( $n = 47$ ). Non-response error was addressed by comparing respondents' and non-respondents' personal and demographic data to population data (Miller & Smith, 1983) and yielded no significance differences. A researcher designed, [Likert-type online survey](#) was used to measure knowledge and importance of [18 pre-selected SAE components](#). To establish face validity, the instrument was sent to a panel of experts (Dillman et al., 2009). Content validity was measured through observing the discrepancy levels between the surveyed results and the observed information (Gliner, 1994; Leedy & Omrod, 2016), [collected directly from the Agricultural Experience Tracker](#) record keeping program. To assess potential discrepancies, data was analyzed using McKim & Saucier's (2011) Excel-based platform.



## Results

Two of the top five AET components participants identified as [very important](#) were categorized as [project types](#), [entrepreneurship/ownership](#) ( $n = 30$ ; 63.8%;  $M = 4.51$ ) and [paid placement](#) ( $n = 29$ ; 61.7%;  $M = 4.47$ ). Participants reported having [no competency](#) to teach or were only somewhat competent in teaching three components within the [project records category](#): [non-SAE labor exchange](#) ( $n = 24$ ; 51.0%;  $M = 2.7$ ), [non-cash transfer](#) ( $n = 23$ ; 48.8%;  $M = 2.72$ ), and [transfer to a capital item](#) ( $n = 23$ ; 48.8%;  $M = 2.77$ ). A MWDS was calculated for each of the 18 areas. All housed in the [project records category](#), the [four highest](#) AET component MWDS were identified as [transfer to a capital item](#) (MWDS = 4.36), [non-cash transfer](#) (MWDS = 4.35), [SAE labor exchange](#) (MWDS = 4.14), and [non-cash transactions](#) (MWDS = 4.08).

Rank	AET SAE Component	MWDS	Importance Means	Competency Means
1	Transfer to a Capital Item	4.36	3.89	2.77
2	Non-Cash Transfer	4.35	3.85	2.72
3	SAE Labor Exchange	4.14	3.94	2.89
4	Non-Cash Transactions	4.08	4.00	2.98
5	Entrepreneurship/Ownership Projects	3.25	4.51	3.79
6	Non- SAE Labor Exchange	3.24	3.60	2.70
7	Research/ Experimental Projects	3.24	3.72	2.85
8	Cash Income	3.21	4.28	3.53
9	Non-Current Inventory	3.11	3.94	3.15
10	Current Inventory	3.07	4.04	3.28
11	Cash Expenses	2.95	4.21	3.51
12	Beginning Inventory	2.88	3.94	3.21
13	Service Learning Project Focus	2.72	3.89	3.19
14	Individual Project Focus	2.58	4.23	3.62
15	Unpaid Placement Projects	2.47	4.19	3.60
16	Foundational Projects	1.94	3.60	3.06
17	Paid Placement Projects	1.92	4.47	4.04
18	School Based Project Focus	1.65	3.66	3.21

## Conclusion/Implications/Recommendations

The purpose of this study was ultimately to [identify discrepancies](#) between perceived levels of importance and competency, which could have come from respondents' viewpoints of the current record keeping program and previously used systems (Hubbard & Sandmann, 2007). Current educators have and will continue to go through a decision-making process to [determine the relative advantages and disadvantages](#) of implementing record keeping programs (Rogers, 2003). It is recommended [additional research explore correlations](#) between program characteristics and the SAE areas being taught. These correlations could be related to the [innovation-decision process](#) of each level of educator. If that is the case, [professional development opportunities](#) could be offered to encourage each level of educator to become more confident in the SAE and record keeping program areas of most relevance to [supplement the learning](#) conducted through agricultural experiences.