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Teacher-Student Data Link (TSDL) PowerSchool Requirements/Design Document

An attempt to reduce data maintenance in the Teacher-Student Data Link update procedure when creating a Michigan State TSDL submission file. Improvements to the program include the ability to:

- Determine the student/course grade completion status, without manually updating records for every student in PowerSchool, using DDA/DDE.
- Extract migrant students for reporting in an ongoing collection.
- Exclude reporting exempt students from the submission file when possible.
- Create an excel file of the State submission file, for teachers and administrators to review, before submitting the file to the State.
  - Only corrections to data are made in PowerSchool during the review process.
  - Teachers can review their course and section grades before submission to the State.
- Improve the TSDL error reporting, identifying errors that require correction before the TSDL submission file is created.
- Review present TSDL submission capabilities to report students in year-long courses, that do not have a year-long final grade.
- Examine a method to report special education students, over 18 years of age, taking the same course in the next school year.

TSDL Michigan State Reporting Requirements

TSDL submission file requirements are taken from the document: "Teacher-Student Data Link (TSDL)," Michigan Student Data System (MSDS), 2014-2015 School year, version 1.

Program design enhancements are identified with "(New)" specified in this document.

District Responsible for Reporting Student Records

The primary education providing entity (PEPE) is responsible for the TSDL student records. In situations where a student attends more than one school district, the State allows each school district to report their related student/courses in a TSDL submission file (page 6). The PowerSchool system only reports Teacher/Student records in the school district PowerSchool database.

TSDL Submission Schedule

Students in the Migrant category must be reported to the State within ten (10) days of entering the school district and within ten (10) days of exiting the school district (page 6, 7). Since all migrant students are reported on enrollment, the student has no course completion grades. The migrant student course status is set to ongoing enrolled (OE) with an empty grade value (page 11). On early exit the migrant student can be reported with a withdrawal exit code.

Students not in the migrant category only need to submit student/course final grades at the end of the school year (page 10). Non-migrant students whom enter and exit the school district within a short period of time do not require reporting (page 7).

The TSDL submission file is an ongoing collection process (page 20) which can update changes in grades and changes to the completion status. Care must be taken when updating the TSDL submission file,

depending on the status of the upload file at the State (page 15) web site. If the upload file is in the staging area (not finalized), then any new file imports override the previous import file. If a TSDL submission file is sent, updating a certified collection, then any existing student courses are modified when appropriate.

Manual Exemption of Students

The TSDL program does not refer to the general collection student exclusion flags: State_ExcludeEnrollment and include_time_share (New). The MSDS general collection and the MSDS TSDL collection can be run independent of one another in an ongoing collection (New).

The student cannot be totally excluded from the TSDL submission (New), meeting the requirement to report all migrant student courses. TSDL exclusion flags are provided for:

- Course
- School (New)
- Section
- Student/Course
- Teacher (New)

Excluding a teacher from a TSDL collection is only for special circumstances (New). The MSDS setup error report lists teachers with the exclude from TSDL collection for review (New).

INNER JOIN SchoolStaff sf ON sf.ID = CC1.TeacherId

INNER JOIN Users tu ON tu.DCID = sf.USERS_DCID

LEFT OUTER JOIN S_MI_SSF_TSDL_X ssfx ON ssfx.schoolStaffDCID = sf.DCID AND NVL(ssfx.excludeTSDL,0) = 0

If the student is a migrant student, then the only valid exclusion is for a specific Student/Course and Teacher (New). Migrant student exclusion is not valid for courses, schools, and sections (New). All migrant student courses must normally be reported.

AND NVL(ccx.excludeTSDL,0) = 0

  AND (NVL(schx.excludeTSDL,0) = 0 OR NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_SRSD_PrgmElig_MigrantEd'),' ') = '1')

 AND (NVL(secx.excludeTSDL,0) = 0 OR NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_SRSD_PrgmElig_MigrantEd'),' ') = '1')

 AND (NVL(crsx.excludeTSDL,0) = 0 OR NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_SRSD_PrgmElig_MigrantEd'),' ') = '1')

Students Exempt from Reporting

The following student categories do not require reporting to the State:

- Early childhood students, grade 30, do not require reporting (page 8).
  - Early childhood students taking kindergarten classes require the kindergarten courses to be reported.
  - Early childhood students taking developmental or retention kindergarten programs need the related courses to be reported.
- Adult education students, grade 20, are not to be reported (page 7, 10).
- Special education students who are over the age of 22, as of the special education count date, and have not completed K-12 education are exempt (page 7, 9).
- Home school students who are not migrant eligible are exempt from reporting (page 8, 9).
- Non-Public students who are not migrant eligible are exempt from reporting (page 8, 9).
- Career and Technical Education (CTE) courses (page 9) reported in the Career and Technical Education System (CTEIS) do not require reporting by the school district. CTE courses not reported by the CTEIS system require reporting.

The TSDL submission only reports students in grades zero (0) to twelve (12), fourteen (14), or thirty (30 New). If the setting code is "14" or "30" then the student is also selected (New). The system does not include students with negative grade levels (-1, -2), reported as kindergarten students, as performed in the general collection (New).

WHERE (NVL(tstu.Grade_Level,0) IN (0,1,2,3,4,5,6,7,8,9,10,11,12,14,30) OR NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_Setting'),' ') <> ' ')

The TSDL program excludes early childhood students, grade 30, that do not have the developmental kindergarten program flag set (New). If the student is in the early childhood grade level, taking a kindergarten course, then the system will presently exclude submitting the data (New). If excluding early childhood students with kindergarten courses is a difficulty, then the students in this category may require a manual solution, including the student in the TSDL submission file (New).

AND (NVL(tstu.Grade_Level,0) <> 30 OR NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_SRSD_PrgmElig_DevRetKinder'),' ') = '1')
AND (NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_Setting'),' ') <> '30' OR
NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_SRSD_PrgmElig_DevRetKinder'),' ') = '1')

Adult education students in grade 20 are excluded from the TSDL submission (New).

Special education students in grade 14, the age of 22 or older as of the October count date, are excluded from the TSDL submission (New).

AND NOT((NVL(tstu.Grade_Level,0) = 14 OR NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_Setting'),' ') = '14') AND
ps.srsmi.miAgeInYears(NVL(tstu.dob,TO_DATE('01/01/2099','MM/DD/YYYY')),ps.srsmi.miCollDate(#firstDayOfSchool#,'SPED')) > 21)

When the student is not a migrant student, then homeschool and non-public school students are not reported in the TSDL submission (New).

AND NOT(NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_SRSD_PrgmElig_MigrantEd'),' ') <> '1' AND
NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_SRSD_StudResMembership'),' ') IN ('04','07','08','15'))

Career and technical education (CTE) courses do not have a special identifier in PowerSchool. CTE courses can be excluded from the TSDL submission using the course flag, section flag, or teacher flag. If the student is a migrant student, then the student/course (CC) flag may be used to exclude a CTE course.

Student/Course Data Selection

The student exit code for not enrolled, value "00", is ignored and any courses received during the school year are reported for the student when appropriate.

Student courses are reported where the Student/Course (CC) days enrolled (date left minus date entered) is greater than the exclude day's parameter. If the student is a migrant student, then the exclude days parameter is not referenced, reporting all migrant student courses, regardless of the migrant student enrollment days (New).

The Student/Course date left must be greater than the date from parameter. The date from normally expected to be the beginning of the school year. If the date left is less than the date from, then it is assumed the Student/Course was reported in a prior submission period.

The Student/Course date entered must be less than or equal to the date to (New). This restriction filters any student courses planned for the future, the next school year, or the student has not received course instruction.

INNER JOIN CC CC1 ON CC1.StudentId = tstu.ID AND CC1.DateEnrolled IS NOT NULL AND CC1.DateLeft IS NOT NULL AND TRUNC(CC1.DateLeft)
> #prevCountDate# AND TRUNC(CC1.DateEnrolled) <= #countDate# AND (TRUNC(CC1.DateLeft) > TRUNC(CC1.DateEnrolled) +
#excludeClassesDays# OR NVL(ps_customfields.getStudentsCF(tstu.Id,'MI_SRSD_PrgmElig_MigrantEd'),' ') = '1')

If the student is not a migrant student, then the course term ending date must be less than or equal to the date to parameter. This excludes any student courses in the TSDL submission that are still ongoing (New).

If the student is a migrant student, then all courses are extracted where the date left is greater than from date. This reports ongoing enrolled student records. The filter for courses starting after the date to, excludes reporting ongoing migrant student courses planned for the future.

AND ((NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_SRSD_PrgmElig_MigrantEd'),' ') <> '1' AND TRUNC(trm.LastDay) <=
#countDate#)
OR NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_SRSD_PrgmElig_MigrantEd'),' ') = '1')

Student Grade Level Reporting

Students in elementary school need to have at least one course reported. Elementary school students are not required to have a grade level or credits earned (page 8). This is dependent on the school system providing final grades for elementary school students. If the student is a migrant elementary school student, then all courses are reported (page 12) for the elementary school student, regardless if the course appears in the student report card or transcript.

Care must be taken when the school district policy is to store grades for elementary schools students and stored grades are not entered or partially incomplete.

Elementary school students require at least one student/course (CC) record with a primary school teacher defined. Elementary school teachers for special topics; such as art, music, and gym are reported at the school district discretion. Migrant elementary school students will report all the all the associated courses the student receives in the enrollment record, unless a specified teacher is excluded from the TSDL submission.

Middle School students need to have at least one course reported. Middle school students can take courses in the NCES elementary category or NCES secondary levels. If the course is reported in the NCES secondary level, then the course must have a grade and credits earned (page 8) reported. Students in grades 6-8 can be reported in NCES elementary categories or NCES secondary levels (page 19). If the student is a migrant middle school student, then all courses must be reported (page 12) for the student, regardless if the course appears in the student report card or transcript. The program will exclude reporting migrant student courses where the teacher is excluded from the TSDL submission.

High school student are required to have all courses reported in NCES secondary categories. High school students are in grades 9-12 (page 9). All secondary level NCES courses require grade and credits earned. If the student is a migrant high school student, then all courses must be reported (page 12) for the student, regardless if the course appears in the student report card or transcript. The program will exclude reporting migrant student courses where the teacher is excluded from the TSDL submission.

Course Completion Status

Course completion status ongoing enrolled (OE) is valid for migrant students (page 11) and special education grade 14 students (page 16). Completion status code OE is to be used for grade 14 special education students who will continue to take the course in the next school year. The OE completion status code for special education grade 14 can only be used with NCES subject code "73" and NCES course code "039", indicating students with severe impairments (page 17). The student grade is not reported when an ongoing completion status code is submitted.

Students reported in the June or July final submission with an OE status, and are not in grade 14 special education, receive a warning from the State regarding ongoing enrolled is not valid for the final completion status.

Course completion status "CS" is used for grade 14 special education students, indicating the student has not passed the course or failed the course. The CS completion status code can only be used with NCES subject code "73" and NCES course code "039" (State validation rule 252.410.4), indicating students with severe impairments (page 17). The student grade is not relevant with a CS completion status; though, the TSDL submission requires a grade to be entered with the CS completion status. A default grade of "N/A" is used with the CS completion status.

Students auditing courses, completion code "AU", do not report a course grade and zero credits granted in the TSDL submission.

Students who test out of a course, completion code "TO", are required to have a course grade, credits granted, and teacher PIC number for the TSDL submission.

MSDS Completion Status Code Requirement Summary

Code	Completion status	Valid only for	Grade	Credits granted
OE	Ongoing enrolled	Migrant student (Migrant student ongoing submission not valid in June and July). Grade 14 special education un-graded course completion. The grade 14 student is continuing in the same course next year (page 16).	No grade	No credits granted
CS	No pass/no failure	Grade 14 special education un-graded course who age out of the system or will not take the course next year (page 16).	No grade associate. Must report an alternative grade; such as "N/A"	No credits granted
AU	Audit course	All students. Elementary and middle school students are questionable.	No grade	No credits granted.
ER	Submitted in error	May be submitted to remove a previous course/grade submission.	Expect no grade for use	Expect zero credits granted as the collection.
TO	Tested out	Expect to be used for middle school and high school students.	Grade required.	Credits must be reported.
I	Incomplete	No final grade entered as of certification deadline	Normally the grade is also incomplete (I).	Need to default to zero.
CF	Complete failed	Grade meeting school district failing category	Grade required for secondary level courses. Grade associated as failing	Can have credits granted?
CP	Complete passed	Grade meeting school district passing category	Grade required for secondary level courses. Grade associated as a passing grade	Credits granted
WE	Withdrawn Exit	Withdrew early from course. No grade or credits for the course	No grade	unknown
WF	Withdrawn Failed	Withdrew from course with a grade and credits granted.	Grade required for secondary level courses. Grade associated as a failing grade for withdrawals.	Can have credits granted?
WP	Withdrawn Passed	Withdrew from course with grade and credits granted.	Grade required for secondary level courses. Grade as a passing grade for withdrawals.	Credits granted.

Completion Status Code Design Proposal Summary

Program rules for setting default completion status codes when no stored grades are entered (New). The setting of the default completion status code assumes all grades are entered in stored grades, indicating the course is ungraded when the student/course grade does not exist (New).

If the student/course stored grade does exist, then the system maps the associated completion status with the grading scale and grade. If the stored grade is entered, then the credits granted for the stored grade are expected to be entered (not blank), or are the value zero (0.00).

Early withdrawal by elementary school students has a parameter for withdrawal passed, withdrawal exit, or withdrawal failed. Setting the default to withdrawal failed may have negative impact on the school district. Early withdrawal for high school students defaults to withdrawal exit.

Code	Completion status	Conditions for setting the completion status	Grade	Credits granted
OE	Ongoing enrolled	Migrant student where no grade is specified and the last day of the term is greater than the date to (not complete).	No grade (blank)	No credits reported (blank)
OE	Ongoing enrolled	Special education grade 14 student, taking the course in the next school year. The OE completion status must be entered in the student/course (CC) record. The course must be for severe impairments.	No grade (blank)	No credits reported (blank)
CS	No pass/no failure	Grade 14 special education with no grade specified and severe impairments. This is the default for grade 14 special education with severe impairments.	Report "N/A"	Set to 0.00
AU	Audit course	Must be entered in the student/course (CC) record or can be a special grade in the stored grades.	No grade (blank)	No credits reported (blank)
ER	Submitted in error	Must be entered in the student/course (CC) record to make a correction.	Report grade from grade book or default.	Report grade from grade book of default.
TO	Tested out	Must be entered in the student/course (CC) record with a stored grade, or can be a special grade in the stored grades.	Grade is required in stored grades.	Credits must be reported in stored grades.
I	Incomplete	Prior to secondary school student with no grade specified the incomplete (I) status is entered in the student/course (CC) record.	No grade (blank)	No credits reported (blank)
I	Incomplete	Secondary school students preferred as a stored grade in the grade book. If entered in the student/course (CC) record then the grade and credits are still required.	Grade required in stored grades.	Credits must be reported from stored grades. If blank then set to 0.00

CF	Complete failed	Prior to secondary school student with no grade specified the CF status is entered in the student/course (CC) record.	No grade (blank)	No credits reported (blank)
CF	Complete failed	Secondary school students require a grade in the grade book with credits reported	Grade is required in stored grades.	Credits must be reported in stored grades.
CP	Complete passed	Prior to secondary school student with no grade specified. The CP status is the default.	No grade (blank)	No credits reported (blank)
CP	Complete passed	Secondary school students require a grade in the grade book with credits reported.	Grade is required in stored grades.	Credits must be reported in stored grades.
CP	Complete passed	Secondary school students with a course marked as un-graded and not meeting the criteria for CS completion status.	Report "N/A"	Credits set to 0.00
WE	Withdrawal Exit	Prior to secondary school student with no grade specified and the student/course (CC) exit date is less the term end date. The WE status is entered in the student/course (CC) record or is the default program parameter.	No grade is required.	No credits reported (blank)
WE	Withdrawal Exit	Secondary school student with no grade specified and the student/course (CC) exit date is less than the term date. The WE status is the default for secondary school students withdrawing early.	Grade is required. Grade is found in teacher grade book; otherwise "N/A".	Credits set to 0.00
WF	Withdrawal Failed	Prior to secondary school student with no grade specified and the student/course (CC) exit date is less the term end date. The WF status is entered in the student/course (CC) record or is the default program parameter.	No grade is required.	No credits reported (blank)
WF	Withdrawal Failed	Secondary school students require a grade in the grade book with credits reported. The withdrawal status is referenced when the student/course (CC) exit date is less than the term end date.	Grade is required in stored grades.	Credits must be reported in stored grades.
WP	Withdrawal Passed	Prior to secondary school student with no grade specified and the student/course (CC) exit date is less the term end date. The WP status is entered in the student/course (CC) record or is the default program parameter.	No grade (blank)	No credits reported (blank)

WP	Withdrawal Passed	Secondary school students require a grade in the grade book with credits reported	Grade is required in stored grades.	Credits must be reported in stored grades.

All student/course completion status codes can be maintained in the record (CC table), though missing stored grades for high school students may still cause an error. Completion status codes that must be maintained in the student/course record include:

- AU – Audited courses are expected to be maintained in the student/course record, without entering a final grade value. Some school districts may choose to have audit status associated with a final grade.
- ER – All error correction of student/course records is maintained.
- TO – Test out completion status is maintained in the student/course record. Some school districts may choose to have test out associated with a final grade as an option. Test out requires a final grade value and a teacher PIC number.

Audit courses, error correction, and test out scenarios are expected to be a small number of cases, requiring maintenance in the student record.

Course completion status codes related to a final grade include:

- I – Incomplete status is associated with a final grade and grading scale.
- CF – Completed failed is associated with a final grade and grading scale.
- CP – Completed passed is associated with a final grade and grading scale.
- WF – Withdrawal fail is associated with a final grade and grading scale.
- WP – Withdrawal pass is associated with a final grade and grading scale.
- AU – Audited is a final grade option available to the school district.
- TO – Test out is a final grade option available to the school district.

The default completion status code takes precedence the order each case is examined:

1. Completion status entered in student/course (CC).
2. Migrant student ongoing course (OE).
3. Elementary school student SCED code default completion (CP).
4. Elementary school student grade less than 6 default completion (CP).
5. Grade 14 special education student severe impairments (CS).
6. Student in un-graded course or un-graded section (CP).
7. Completion status matching the grading scale and grade book value.

```
CASE

 WHEN NVL(ccx.completionStatus,' ') <> ' ' THEN NVL(ccx.completionStatus,' ')
 WHEN TRUNC(CC1.DateLeft) < TRUNC(trm.LastDay) THEN
  CASE
   WHEN sg.Grade IS NULL AND NVL(crsx.NCESsubjectArea,' ') > '22' THEN #withDefault#
   WHEN sg.Grade IS NULL AND NVL(tstu.Grade_Level,0) < 6 THEN #withDefault
   WHEN sg.Grade IS NOT NULL AND sg.gradescale_Name IS NOT NULL THEN (SELECT NVL(gsix.withdrawalStatus,'WE') FROM
S_MI_GSI_TSDL_X gsix INNER JOIN GradeScaleItem gs ON TRIM(UPPER(gs.Name)) = TRIM(UPPER(sg.GradeScale_Name)) AND GradeScaleId = -1
```

INNER JOIN GradeScaleItem gsi ON gsi.GradeScaleId = gs.Id AND TRIM(UPPER(gsi.Name)) = TRIM(UPPER(sg.Grade)) WHERE gsix.GradeScaleItemDCID = gsi.DCID)

   ELSE 'WE'

  END

 WHEN sg.Grade IS NULL AND NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_SRSD_PrgmElig_MigrantEd'),' ') = '1' AND TRUNC(trm.LastDay) > #countDate# THEN 'OE'

 WHEN sg.Grade IS NULL AND NVL(crsx.NCESsubjectArea,' ') > '22' THEN 'CP'

 WHEN sg.Grade IS NULL AND NVL(tstu.Grade_Level,0) < 6 THEN 'CP'

 WHEN sg.Grade IS NULL AND (NVL(tstu.Grade_Level,0) = 14 OR NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_Setting'),' ') = '14') AND NVL(crsx.NCESsubjectArea,' ') = '73' AND NVL(crsx.NCEScourseId,' ') = '039' THEN 'CS'

 WHEN sg.Grade IS NULL AND (NVL(crs.excludeFromStoredGrades,0) = 1 OR NVL(sec.excludeFromStoredGrades,0) = 1) THEN 'CP'

 WHEN sg.Grade IS NOT NULL AND sg.gradeScale_Name IS NOT NULL THEN (SELECT NVL(gsix.completionStatus,'') FROM S_MI_GSI_TSDL_X gsix INNER JOIN GradeScaleItem gs ON TRIM(UPPER(gs.Name)) = TRIM(UPPER(sg.GradeScale_Name)) AND GradeScaleId = -1 INNER JOIN GradeScaleItem gsi ON gsi.GradeScaleId = gs.Id AND TRIM(UPPER(gsi.Name)) = TRIM(UPPER(sg.Grade)) WHERE gsix.GradeScaleItemDCID = gsi.DCID)

 ELSE ''

END AS completionStatus,

Final Course Grade Reporting

Schools districts define the letter grade values reported for the student courses. If the student is a special education student in grade 9-12 and the student is educated in an ungraded setting, then "N/A", "No grade", or a district defined grade is used (page 16, 17).

Special education students in courses that do not assign academic grades are reported with "N/A" in the grade. The program checks for the course data attribute "ExcludeFromStoredGrades" and the sections data attribute "ExcludeFromStoredGrades", determining courses that do not assign academic grades (new).

If the student grade is null then the program check for where the course does not assign academic grades, assigning the value of "N/A".

The default course grade assignment takes precedence the order each case is examined:

1. The completion status is audit or completion status is ongoing enrolled (blank).
2. The student is in a prior to secondary level course (blank).
3. The student is in elementary school (blank).
4. The student is a migrant student and the course is ongoing enrolled (blank).
5. The student is a special education grade 14 with completion status value CS ("N/A").
6. The course is not assigned academic grades ("N/A").
7. The student is withdrawing from a course, obtain a grade from the teacher grade book.
8. Otherwise report "N/A" when the grade is missing.

```
CASE

 WHEN sg.Grade IS NULL AND (NVL(ccx.completionStatus,' ') = 'AU' OR NVL(ccx.completionStatus,' ') = 'OE') THEN ''

 WHEN sg.Grade IS NULL AND NVL(crsx.NCESsubjectArea,' ') > '22' THEN ''

 WHEN sg.Grade IS NULL AND NVL(tstu.Grade_Level,0) < 6 THEN ''

 WHEN sg.Grade IS NULL AND NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_SRSD_PrgmElig_MigrantEd'),' ') = '1' AND
TRUNC(trm.LastDay) > #countDate# THEN ''

 WHEN sg.Grade IS NULL AND (NVL(tstu.Grade_Level,0) = 14 OR NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_Setting'),' ') = '14')
AND NVL(crsx.NCESsubjectArea,' ') = '73' AND NVL(crsx.NCEScourseId,' ') = '039' THEN 'N/A'

 WHEN sg.Grade IS NULL AND (NVL(crs.excludeFromStoredGrades,0) = 1 OR NVL(sec.excludeFromStoredGrades,0) = 1) THEN 'N/A'

 WHEN sg.Grade IS NULL AND trmx.storeCode IS NOT NULL AND TRUNC(CC1.DateLeft) < TRUNC(trm.LastDay) THEN (SELECT
NVL(pg.Grade,'N/A') FROM pgFinalGrades pg WHERE pg.studentId = tstu.Id AND pg.sectionId = sec.ID AND pg.gradeBookType = 1 AND
UPPER(TRIM(pg.finalGradeName)) = UPPER(TRIM(NVL(trmx.storeCode,' '))) AND pg.Grade <> '--')

 WHEN sg.Grade IS NULL THEN 'N/A'

 ELSE sg.Grade

END AS courseGrade,
```

Final Course Credit Granted Reporting

The TSDL manual states: "Credits Granted will allow values from 0.00 to 9.99 to be submitted. Credits Granted are in Carnegie Units." The PowerSchool TSDSL submission will assume the course credits are Carnegie units.

If credits granted in stored grades is less than zero, then set credits granted to zero (New).

CASE WHEN sg.earnedCrHrs IS NULL AND (NVL(ccx.completionStatus,' ') = 'AU' OR NVL(ccx.completionStatus,' ') = 'OE') THEN ''

 WHEN sg.earnedCrHrs IS NULL AND NVL(crsx.NCESsubjectArea,' ') > '22' THEN ''

 WHEN sg.earnedCrHrs IS NULL AND NVL(tstu.Grade_Level,0) < 6 THEN ''

 WHEN sg.earnedCrHrs IS NULL AND NVL(ps_customfields.getStudentsCF(CC1.StudentID,'MI_SRSD_PrgmElig_MigrantEd'),' ') = '1' AND TRUNC(trm.LastDay) > #countDate# THEN ''

 WHEN NVL(sg.earnedCrHrs,-1.0) < 0.0 THEN '0.00'

 ELSE TRIM(TO_CHAR(NVL(sg.earnedCrHrs,0.0),'0.00'))

 END AS creditsGranted,

Student/Course Unique Identifier and Year Long Courses

The student/course is identified by a combination of the local course id and the course section id. The unique identification code can be amended to include a term code or similar identifier, insuring the course identifier is unique.

Semester course grades for year-long course can be reported by adapting the unique course identifier with a semester code. Review "Year Long Courses" on page 21 of the TSDL manual.

Selecting year long course grades from the teacher grade book was studied. The course credits are not calculated in the teacher grade book for use in the TSDL submission. The present ability to calculate and store average final grades, using PowerSchool functionality, appears to be a viable solution.

Ongoing enrolled special education students, over 18 years of age, in an un-graded class room setting

PowerSchool capabilities were reviewed, determining students likely to take the same course in the following school year (band, orchestra, etc.). The special education department, at the Macomb Intermediate School District (MISD), reviewed several scenarios where a special education student would continue taking the same course. The final determination was each student for ongoing enrolled status most likely requires individual evaluation.

A sample scenario from the special education department is as follows:

> The district operates programs for students with a moderate cognitive impairment who are eligible for special education programs and services until they are 26. This program is frequently referred to as "post-secondary transition" and provides education and training in a variety of areas including career awareness, custodial maintenance, fast foods, food prep, grounds and gardens, life skills, retail support and more. The various programs and services provide experiences and training to promote each student's transition from school to community life. Each area such as "Grounds and Garden" is treated as a full-day semester-long course. As a work based educational program, this post-secondary transition program provides

training to help develop appropriate work habits and attitudes. Occasionally, students with disabilities may need to continue in one area for two or more semesters in order to improve and master skills related to measurable goals described in their IEPs. This situation would be reported as "Ongoing Enrolled."

Teacher/Course Requirements

The teacher PIC number is always required (page 9), with the exception for Career and Technical Education (CTE) courses (subject area code "00") and Early Middle college (course type "07", page 13).

The teacher/course records are excluded in the TSDL submission file, where the PIC number is missing and the subject area code is not for a CTE course and the course type is not Early Middle college (New). The TSDL error report list all teacher/course records for correction with missing PIC numbers.

INNER JOIN SchoolStaff sf ON sf.ID = CC1.TeacherId

INNER JOIN Users tu ON tu.DCID = sf.USERS_DCID

LEFT OUTER JOIN S_MI_SSF_TSDL_X ssfx ON ssfx.schoolStaffDCID = sf.DCID AND NVL(ssfx.excludeTSDL,0) = 0

WHERE (ssfx.repPIC IS NOT NULL OR NVL(crsx.NCESsubjectArea,' ') = '00' OR NVL(crsx.courseType,' ') = '07')

TSDL Submission Business Rules

Business rules are specified from the TSDL Student Course component matrix (2014-2015):

Characteristic Name	Rule Number	Data Validation
	252.1	The same [LocalCourseId], [CourseSectionId], and [AcademicYear] combination cannot be submitted in multiple [StudentCourse] components
CompletionStatus	252.410.2	If [CompletionStatus] = "TO" [CourseGrade] cannot be blank
	252.410.4	If [CompletionStatus] = "CS" [SubjectAreaCode] must = "73" and [CourseIdentifierCode] must = "039"
	252.410.5	If [CompletionStatus] = "ER" [LocalCourseID] and [CourseSectionID] and [AcademicYear] and {SchoolDemographics}.[OperatingDistrictNumber] and {SchoolDemographics}.[SchoolFacilityNumber] must match a previously certified record for this student submitted within the current school year
CourseGrade	252.434.1	If [SubjectAreaCode] = "01"-"22" AND [CompletionStatus] <> "AU" or "OE" [CourseGrade] cannot be blank
CourseIdentifierCode	252.173.1	If [SubjectAreaCode] <> "00" [CourseIdentifierCode] cannot be blank
	252.173.2	[CourseIdentifierCode] must be a valid NCES Course ID that is associated with the Subject Area Code submitted.
CourseType	252.160.1	If [CourseType] = "02" or "03" {SchoolDemographics}.[GradeOrSetting] must be between "07" and "12"
	252.160.2	If [CourseType] = "04" or "07" {SchoolDemographics}.[GradeOrSetting] must be between "09" and "12"
CreditsGranted	252.166.1	If [SubjectAreaCode] = "01"-"22" AND [CompletionStatus] <> "AU" or "OE" [CreditsGranted] cannot be blank
MentorPIC	252.561.1	If [VirtualMethod] = "Not Virtual' or blank [MentorPIC] must be blank
	252.561.2	[MentorPIC] must be a valid PIC in REP Mentor PIC must be a valid PIC in REP.

PIC	NOTE	A maximum of 3 [PIC]s per student and course may be reported.
	252.427.1	If [CourseType] <> "07" OR [SubjectAreaCode] <> "00" [PIC} cannot be blank
	252.427.2	[PIC] must be a valid number in REP
	252.427.3	The same [PIC] may only be reported once per component
SubjectAreaCode	252.171.1	If {SchoolDemographics}.[GradeOrSetting] = "00", "01", "02", "03", "04", "05", or "30" [SubjectAreaCode] must be a valid NCES Prior to Secondary SCED code
	252.171.2	If {SchoolDemographics}.[GradeOrSetting] = "06", "07", "08", or "14" [SubjectAreaCode] must be a valid NCES Prior to Secondary SCED Code OR NCES Secondary SCED Code
	252.171.3	If {SchoolDemographics}.[GradeOrSetting] = "09", "10", "11", or "12" [SubjectAreaCode] must be a valid Secondary SCED Code, "01"-"22"; OR [SubjectAreaCode] must ="00"; OR [SubjectAreaCode] must equal "73" and [CourseIdentifierCode] must = "039".

PowerSchool Teacher-Student Data Link Design Proposal

Improvements to present TSDL submission file procedure.

Program Input Parameters

- School year start date – used to identify the beginning of the school year (new).
- From date – select student/courses enrolled within the start date. For a single end of year submission, the school year start date and from date are expected to be the same.
- To date – select student/courses that end less than or equal to the To Date. For a single end of year submission, the To Date is expected to be the end of the school year.
- Extract Migrant students only – add a parameter to extract only migrant students in the submission file (New).
- Elementary ungraded withdrawal (New) – default to withdrawal pass (WP), withdrawal exit (WE), or withdrawal fail (WF).
- Exclude all student/courses enrolled less than xx days. The enrollment days is in calendar days (IE: 7 days is one week). Ten (10) school days is fourteen (14) calendar days.
- Select student school buildings. Note: this option extracts the students presently assigned to a school building. If the student attends courses in more than one school building, then all the courses for the student will appear only in one output file.

Program Data Dependencies

- Migrant students must be identified (MI_SRSD_PrgmElig_MigrantEd = 1 new).
- Special education students must be identified properly:
  - Special education student in grade level 00-12 (MI_SRSD_PrgmElig_SpecEd = 1 new).
  - Special education grade level 14 (MI_Setting = 14 or Grade_Level =14 new)
- Adult education student must be identified (MI_Setting = 20 or Grade_Level =20 new)
- Early Child/Early on students must be identified (MI_Setting = 30 or Grade_Level =30 new)
- Developmental or retention kindergarten program must be identified (MI_SRSD_PrgmElig_DevRetKinder = 1 new)
- Home school students and non-public school students are identified (MI_SRSD_StudResMembership = 04, 07, 08, 15 new).
- Out of level grade must be reported properly (MI_EcFundingType).
- Courses with no academic grades are identified in course setup. (Courses. ExcludeFromStoredGrades = 1 new).
- Sections with no academic grades are identified in section setup. (Sections. ExcludeFromStoredGrades = 1 new).
- Courses for severe impairments for special education are setup with the proper NCES codes (crsx.NCESsubjectArea = '73' AND crsx.NCEScourseId = '039' New)
- The student/course (CC) date left must align with the term ending date. If the date left is less than the term ending date, then the completion status is a withdrawal.
- The courses in the last day of the term must be less than or equal to the date to (input parameter).

TSDL Submission Data File Anomalies

The school demographic component reports a single school building and grade/setting for each student. The program extracts the current student assigned school building. If the student grade/setting does not conform to the business rules for the course, then there may be a problem in the TSDL finalization. The out of grade level option may be used to correct the problem, though it is unknown whether this attribute is used in the MSDS TSDL finalization rules.

The TSDL submission must be run and finalized before the end of year process, reporting the student building and grade level for the recent school year.

The old TSDL program checks for withdrawal completion status defined as: course date left less than the term date.

> WHEN stuCrs.CCEnd < stuCrs.TermEnd

This function is actually incorrect since the course completion date is similar to the reenrollments record. The student/course (CC) date left is not active on the date left. When the course is fully completed, the date left is one day greater than the term end date. If the student/record (CC) date left and term end date are the same, then the student actually did not complete the course, since the student was only active the day before the completion date.

For consistency the new program will continue the practice, unless directed to make the correction.

Michigan MSDS Set-up Errors Program

To help identify setup errors in MSDS collections a new program analyzes data in courses, student/course (CC), grade scale, schools, sections, school staff (teachers), stored grades, and terms. A CSV file is created for review and correction of system tables.

Program Input Parameters

- School year start date – used to identify the beginning of the school year (new). Limits errors in stored grades and terms to the current school year.

Messages Reported

Table	Category	Message
Courses	ERROR	TSDL course type, NCES course id, or NCES subject area are invalid
Courses	ERROR	Invalid TSDL virtual delivery code
Courses	VERIFY	Non subject area course (73) and prior to secondary education (039)
Courses	VERIFY	Course excluded from stored grades. No academic grades are assigned.
CC	ERROR	Invalid TSDL virtual delivery code
GRADE SCALE	WARN	Missing TSDL grade scale completion status code or TSDL withdrawal status code
PG FINAL GRADES	ERROR	Duplicate grade book: student, section, and store code
SECTIONS	VERIFY	Section excluded from stored grades. No academic grades are assigned.
SECTIONS	ERROR	Invalid TSDL virtual delivery code
SCHOOLS	VERIFY	School excluded from TSDL submission.
SCHOOL STAFF	WARN	Duplicate teacher PIC number
SCHOOL STAFF	VERIFY	Teacher is excluded in all TSDL submissions
STORED GRADES	ERROR	Stored grade grading scale name is invalid
STORED GRADES	ERROR	Stored grade value is not found in the grading scale
STORED GRADES	ERROR	Duplicate stored grades in section, term, and store code. Validation for MSDS TSDL business rule 252.1
TERMS	WARN	Missing TSDL term store code

Michigan MSDS TSDL Error Report

The error report uses the same output data from the TSDL XML submission file. The output for the XML submission file is analyzed for missing or invalid course completion status codes, final course grades, final course credits, invalid combinations of NCES codes, and the MSDS TSDL business rules.

Teachers with missing PIC numbers are reported in the error report for correction. The XML submission file does not include any student/course records where the teacher PIC number is missing. This may be a choice to exclude teachers with no PIC number in the final submission file.

If the errors identified in the error report are not corrected, then the subsequent XML submission file at the State is expected to report the same errors at finalization.

A CSV file is created with data for review and correction of errors. An option is available to create a CSV file of all the records for submission, representing the data in the XML file format. The CSV file can be provided to school buildings for review, before creating the XML file for submission to the State. The teachers may wish to audit their student grade book entries with the TSDL submission file.

If the errors identified in the error report are not corrected, then the resulting XML submission file at the State is expected to report the same errors before finalization.

Program Input Parameters

- School year start date – used to identify the beginning of the school year.
- From date – select student/courses enrolled within the start date. For a single end of year submission, the school year start date and from date are expected to be the same.
- To date – select student/courses that end less than or equal to the To Date. For a single end of year submission, the To Date is expected to be the end of the school year.
- Extract Migrant students only – add a parameter to extract only migrant students in the submission file.
- Error file or final submission file – add a parameter to extract error messages or all records for review and finalization.
- Elementary ungraded withdrawal (New) – default to withdrawal pass (WP), withdrawal exit (WE), or withdrawal fail (WF).
- Exclude all student/courses enrolled less than xx days. The enrollment days is in calendar days (IE: 7 days is one week). Ten (10) school days is fourteen (14) calendar days.
- Select student school buildings. Note: this option extracts the students presently assigned to a school building. If the student attends courses in more than one school building, then all the courses for the student will appear only in one output file.

Note: Error report parameter settings must be the same as the final XML submission file parameters.

Messages Reported

MSDS Business Rule	Category	Message
252.410.2, 252.434.1, 252.172.1, 252.166.1	ERROR	The following data items are required: completion status, course grade, course identifier, and credits granted.
252.410.4	ERROR	When the completion status is CS subject area=73 and id=039 is required.
252.427.1	ERROR	The teacher PIC number is required and will not be report in the XML otherwise.
252.561.1	ERROR	A mentor PIC number is only valid for virtual class courses.
252.160.1, 252.160.2	ERROR	Course type (02, 03) is valid for grades 07-12. Course type (04, 07) is valid for grades 09-12.
252.171.1 252.171.2 252.172.3	ERROR	The NCES SCED code is invalid for the grade level and the student is not taking a course out of grade level.
	WARN	There may be a problem reporting migrant student enter/exit in the ten (10) day period.
	ERROR	Ongoing enrolled (OE) students that are not special education grade 14 in the final submission is invalid.
	ERROR	When the completion status is OE, subject area=73 and course id=039 is required for special education grade 14.

Error Report CSV File Data Attributes

1. School name
2. Teacher name
3. Course name
4. Unique PowerSchool section identifier
5. Course number
6. Student number
7. Grade level
8. Migrant student
9. Out of level grade
10. Student/Course (CC) date in
11. Student/Course (CC) date out
12. SCED subject area code
13. SCED course
14. Course type
15. Credits granted
16. Final grade reported
17. Completion status
18. Teacher PIC number
19. Teacher 2 PIC number
20. Teacher 3 PIC number

21. Virtual delivery method
22. Virtual delivery mentor
23. Virtual delivery mentor 2
24. Virtual delivery mentor 3
25. Error message
26. Related MSDS business rule

Suggested Minimum TSDL File Audit

The TSDL file in CSV format may be used to audit records, prior to submitting the XML file to the State. The Excel Filter option is used to summarize data. Suggested audit review includes:

1. All schools appear in the file.
2. All teachers are represented in the file for each school building.
3. All students are represented in the file. Student count must exceed the current student count, including the students who exited in the school year.
4. All grade levels appear for each school building.
5. Grade level thirty (30) appears when appropriate for each school building. Were grade level students not reported that were taking kindergarten classes?
6. Grade level fourteen (14) student count is appropriate for each school building.
7. Grade level student count is appropriate for each school building.
8. Migrant students are reported and migrant student count is correct. Are migrant student's included in the final submission file?
9. Student with out of level grade are reported.
10. All courses are represented for each school building.
11. A Date out appears for each reporting term in the school year, for each school building.
12. The record count for the date out at the end of each term is the majority of records, reporting a completed status code (CP, CF, or CS).
13. Cursory review of student/course in the final submission. Are all the student courses taken reported in the TSDL submission, for each school building?
14. Credits assigned appear for each school building when appropriate?
15. Final grades assigned appear for each school building.
16. All virtual delivery courses appear for each school building.
17. Review of elementary school grades. Should the school be reporting grades, or are no grades reported?
18. Review of middle school grades. Are the grades reported properly for prior to secondary courses and secondary course levels?
19. Review of high school grades. Do the courses all have grades and credits reported?
20. Review/Count of audit course completion status count for each school building.
21. Review/Count of test out completion status count for each school building.
22. Review of ongoing enrolled for migrant students during the school year.
23. Review of ongoing enrolled special education grade 14 at the end of the school year, for each school building.
24. Review/Count of CS completion status for each school building.
25. Review/Count of CF and WF completion status for each school building.
26. Review/Count of incomplete completion status for each school building.

27. Review of withdrawal exit (WE) grades derived from the teacher grade book in middle schools and high schools.
28. Reporting of "N/A" grade in elementary schools is problematic.
29. Review of "N/A" grade reporting in middle schools and high schools is appropriate for the completion status reported.

Program Test Requirements

To be documented.